ANNUAL REPORT

OF THE

DEPARTMENT OF AGRICULTURE

OF THE

PROVINCE OF ALBERTA

1912

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



J. W. Jeffery, Government Printer 1913



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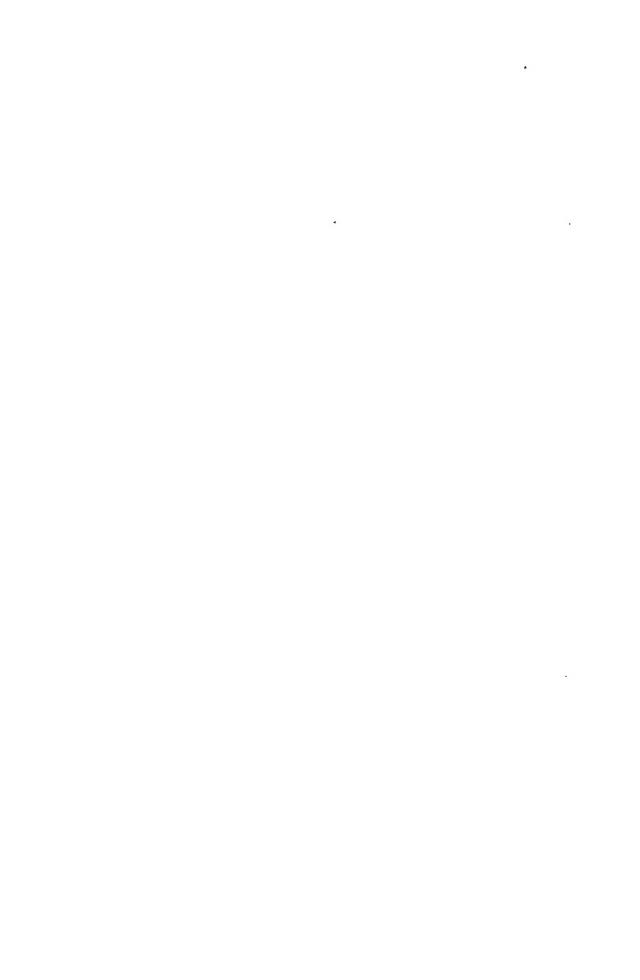
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EDMONTON
J. W. JEFFERY, GOVERNMENT PRINTER
1913.



DEPARTMENT OF AGRICULTURE, EDMONTON, February 24, 1913.

To His Honour

GEORGE HEDLEY VICARS BULYEA,

Lieutenant Governor of the Province of Alberta.

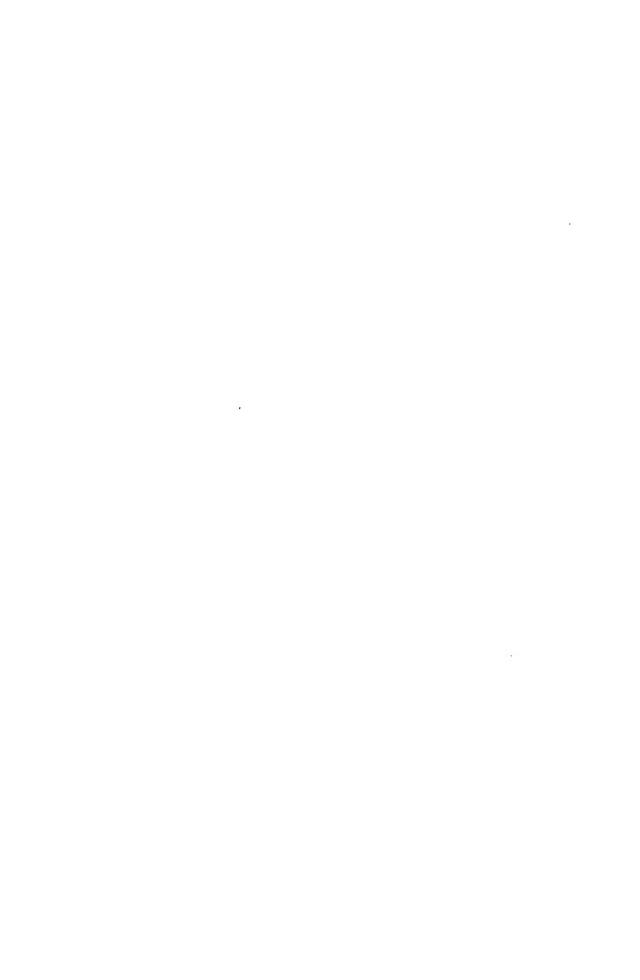
Sir,—

I have the honour to submit herewith the Report of the Department of Agriculture for the year 1912.

I have the honour to be, Sir,
Your obedient servant,

DUNCAN MARSHALL,

Minister of Agriculture.



REPORT

OF THE

DEPARTMENT OF AGRICULTURE

DEPARTMENT OF AGRICULTURE, EDMONTON, February 25, 1913.

HON. DUNCAN MARSHALL, Minister of Agriculture.

SIR,—I have the honour to submit herewith a report covering the work of the various branches of the Department of Agriculture for the year 1912. For convenience the report is arranged as follows:

- 1. Report of the Deputy Minister.
- 2. Report of the Dairy Commissioner.
- 3. Report of the Superintendent of Seed and Weed Braneh.
- 4. Report of the Game and Fire Guardian.
- 5. Report of the Poultry Superintendent.
- 6. Report of the Recorder of Brands.
- 7. Report of the Superintendent of Fairs and Institutes.
- 8. Report of the Live Stock Commissioner.
- 9. Report of the Provincial Medical Officer of Health.
- 10. Report of the Provincial Sanitary Engineer.
- 11. Report of the Director of the Provincial Laboratory.
- 12. Report of the Publicity Bureau.
- 13. Report of the Superintendent of Demonstration Farms.
- 14. Appendices—

 - a—Report of the Alberta Horse Breeders' Association. b—Report of the Alberta Cattle Breeders' Association. c—Report of the Alberta Swine Breeders' Association.

 - d—Report of the Alberta Sheep Breeders' Association.

I have the honour to be, Sir,

Your obedient servant,

GEORGE HARCOURT, Deputy Minister of Agriculture.

1.—REPORT OF THE DEPUTY MINISTER.

SIR,—The work of the Department lends itself to divisions more or less self-contained, and for this reason it has been broken up into branches, the heads of which make a report on the work covered by their particular branch. Such work as has not been placed under a branch is grouped under the following headings for the purposes of this report:

- 1. Live Stock.
- 2. Crops.
- 3. Vital Statistics.
- 4. Miscellaneous.

1.--LIVE STOCK.

Stock came through the winter in excellent shape on account of the mild winter and general abundance of feed. Further details regarding stock generally will be found in the report of the Live Stock Commissioner.

ENROLMENT OF STALLIONS.

The provisions of The Horse Breeders' Ordinance require the owner of every stallion, who stands his horse for profit or gain, to have him enrolled in the books of the Department. Under the authority vested in him by the Ordinance the Minister of Agriculture has decided that only those stallions recorded in the stud book kept under the authority of, or those foreign stud books approved and recognized by, the Canadian National Live Stock Records of Ottawa, shall be eligible for enrolment as purebred stallions.

These Canadian stud books are as follows:

Clydesdale Stud Book of Canada.
Canadian Hackney Stud Book.
Canadian Shire Horse Stud Book.
Canadian Percheron Stud Book.
Canadian Thoroughbred Stud Book.
Canadian Belgian Draft Stud Book.
Canadian Belgian Draft Stud Book.
French Canadian Horse Breeders' Stud Book.
Canadian Pony Stud Book.
Canadian French Coach Stud Book.
Canadian Suffolk Horse Stud Book.
Canadian Standard Bred Stud Book.

The following foreign stud books are recognized by the Canadian National Live Stock Records and stallions possessing registration in these records will be entitled to enrolment in the books of the Department as purebred:

Cleveland Bay Stud Book, Yorkshire Coach Stud Book, American Morgan Register. American Saddle Horse Register. Ostfriesisches Stutbuch, Stutbuch der Munsterlandisch-Oldenburgischen Geest. Oldenburger Stutbuch. Gestutbuch der Holsteinischen Marschen.

Grade certificates are issued for horses which are not of pure breeding, and those horses recorded in unrecognized stud books.

The enrolment of stallions for the year 1912 shows a slight decrease over that of the previous year. The following is a summary:

Clydesdales	100
Belgians	10
French Coach	2
German Coach	(
Hackney	(
Percheron	70
Shire	•
Suffolk Punch	12
Standard Bred	13
Thoroughbred	5
French Canadian	1
Total enrolment of Pure Breds	234
Total enrolment of Grades	223
•	
Grand Total	457

TOTAL ENROLMENT OF STALLIONS IN PROVINCE.

BREED					YEAR				
	1904	1905	1906	1907	1908	1909	1910	1911	1912
Clydesdale	68	25	81	86	95	101	125	140	106
Percheron	16	10	35	56	52	54	65	72	76
Standard Bred	8	2	10	15	15	20	14	17	11
Shire	10	4	10	18	11	11	12	6	6
Hackney	5	1	2	8	8	10	5	5	6
French Draft	2	4	5	2	8	4	0	0	0
Thoroughbred	3	1	10	8	6	5	10	4	3
Suffolk	3	O .	3	4	6	4	4	9	12
Belgian	1	0	2	9	5	3	10	15	10
French Coach	2	2	2	0	4	3	2	0	2
German Coach	0	0	0	2	2	0	0	4	0
American Saddle H'rs	0	0	0	0	1	0	1	0	0
Cleveland Bay	0	0	1	0	0	0	0	0	0
French Canadian	0	0	1	0	0	0	0	1	1
Hunter	0	0	0	0	0	0	1	0	1
Total Pure Breds	118	49	162	208	213	216	249	273	234
Total Grades	151	98	329	334	269	231	225	201	223
Total Enrolment	269	147	491	542	482	447	474	474	457

			Bred	
 1.4.1				9 709

ANIMALS RUNNING AT LARGE.

Under this heading is grouped a report on the workings of four Ordinances, namely: The Stray Animals Ordinance, dealing with the disposal of animals found on the premises of partics other than their owner; The Entire Animals Ordinance, providing for the safety of breeding stock on the open range by prohibiting the running at large of stallions over one year, and bulls over nine months old; The Herd Ordinance (applicable only in a limited area), providing for the fencing in of all stock during the crop season, thus reducing the amount of fencing required; and The Pound District Ordinance, under the provisions of which farmers in well settled districts can regulate the running at large of all animals by impounding those not under proper control and assessing damages where they break through a lawful fence.

THE STRAY ANIMALS ORDINANCE.

During the year brand readers were appointed wherever it was found necessary to have them. Generally speaking the work of these men has proven very satisfactory.

The following brand readers have been appointed:

Elias Pilling Leavitt Frank V. Falconer Cardston R. A. Pilling Cardston James S. Parker Mountain View R. C. McDonald Macleod N. Neilson Taber D. F. W. Willock Pincher Creek	
R. A. Pilling	
James S. Parker	
James S. Parker	
N. NeilsonTaber	
D. F. W. Willock	
Lawrence Doyle	
John Wright Monarch	
Wm. R. CochraneGranum	
Alfred E. HunterClaresholm	
Henry FreyBarons	
T. BoultonWillows	
Thomas H. DenganNanton	
George ToddThigh Hills	
Peter McElroy Nanton	
Levi AyotteChampion	
W. B. ThorneAldersyde	
E. Jewitt ThorneAldersyde	
Arthur R. BondLoma	
Noah WakefordGladys	
George ScottOkotoks	
A. S. McDonald	
James Robertson	
H. G. Newcomb	۸n
Thomas E. McSpaddenSunnyslope	eп
Percy W. Rubbra	
David J. Witwer	
A. J. CameronGhost Pine Creek	
W. K. EvansPonoka	
E. R. LevagoodDidsbury	
Hugh Ross	
C. O. LindeborgDrumheller	
L. E. EckenfelderTrochu	
Henry A. RossTrochu	
Cornell L. HolmesOlds	

W. Niddrie
John A. Swanson Trochu
E. G. ChenfieldBowden
J. H. McArthurKnee Hill Valley
Thomas Moore Trochu
C. O. HerronMayton
Alfred E. BenedictMayton
Luskey Berkley Murray Valley
Fred J. Niddrie
John TurnbullBowden
Thomas BairdRed Willow
E. M. WhitesideZenith
J. H. Thompson Scollard
W. B. DunlopVictor
Frank Johnstone Erskine
J. BradyMannville
R. J. Ferguson
P. D. Cooney Stettler
Ernest A. RobinsonLawsonburg
Henry BraceBritain Oliver GobbonErskine
W. H. TaylorHalkirk
Fred Mason
John J. Miller
Bert UttlerGopher Head
Walter SharpeSedgewick
Charles B. BrownfieldBrownfield
O. A. Hastings
H. N. LockwoodProvost
C. H. SchneiderFlagstaff
John F. HarrisFlagstaff
T. J. CoppockIngleton
Ed. G. SymingtonProvost
J. R. AdamsLougheed
Edward F. DahlCzar
C. A. HoganGalahad
J. S. ReynoldsCereal
Oscar CarlstonLake Thelma
Thomas HelmboltCoronation
Fred H. Davis
A. F. MaleyHanna
Nels P. NystromAmisk
A. J. ThompsonConsort
W. A. ReidConsort
Mike Riedel
L. K. CranmerCranmer
J. H. CaldwellKillam
R. DavidsonRaven
F. H. ThomsonInnisfail
Walter WhitesidePenhold
Robert MilliganPine Lake
Thomas SigurdsonBurnt Lake
C. W. WyndhamPerbeck
Spencer Wyndham Penhold
Thomas B. Duncan
G. H. BawtinheimerRed Deer
Donald Smith
Percy Kneeshaw
Clarency N. GuynupRed Deer
A. J. LeslieLacombe
Marshall DouglasLacombe
R. T. Attwood
E. B. Proctor
Horace Hickling
George A. WellsWhitebrush
Clarence DameronBentley
O. M. GilbertsonGilby
O, MA, GALMON WOMEN TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL

Thomas J. RossClive
James TeesValley City
W. D. Cook
James J. CalrnsMlrror
James J. Calrus
P. R. StewartEarlville
Saul PrestonBuckhorn
J. W. DonovanBluff Centre
James EvertsWittenburg
C. R. KlrkBlsmark
Charles Tate Waterglen
C. L. FarnumPonoka
N. A. Donaldson Manfred
Sam DoranPonoka
R. Ravnsborg Asker
J. D. Cowan
G. II. Talanan Dogument
S. H. Johnson Beaumont J. A. Sangster Conjuring Creek
J. A. Sangster
John W. West
H. F. Flater
H G Puthouse New Sarenta
Tohn A Durke Formy Point
John A. Burke Ferry Point P. Hubbell
P. Hubbell Meeting Creek
L. N. Bull
G. T. Campbell Wanda
Andrew LeslleDuhamel
R. V. Campbell
C. I. Bljorge Ferry Point
C. NixonManfred
H. Kibbe Meeting Creek
D. A. HartOhaton
James B. Erlckson
Wm. M. Ross
Will, M. Ross
George Bourque Earling
George Blakely New Sarepta
Henry Eshpeter Spring Lake
A. A. LoftusInnisfree
Blalr McGregorWildmere
James T. Brady
F. A. Boileau Duvernay
J. S. McCallum Mundare
P. P. KjosnessRyley
P. Bolan
A. Watson
S. A. RichardsonBens Lake
H. J. Frederick Bruce
D. J. McCallum
J. S. McWlthey Strathcona
A. C. SmlthWabamun
Fred CosensSion
John A. EdgsonEdison
Thomas Littlefair Mosside
J. E. Gibeault Mo. inville
Thomas A. WilsonSturgeonville
George MulliganBon Accord
Walter Dinwoodie
Leonard Glrard Brosseau
·

Following is a statement showing the number of animals sold, when, by what justice, amount received, and amount forwarded to the Department. The money received is placed in a trust fund and may be obtained by the owner upon his proving to the satisfaction of the Department that he is the rightful owner, within twelve months from the date of sale.

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912

Proc' ds Sent to of Depart- Sale ment	\$21.55	153.00 125.90	50.75 28.65	22.75	39.00	25.00	21.35		09'2	3.85	8.00	1.00	5, 1912 118.50 100.40
Proc'ds of Sale	\$41.50	153.00	67.00 43.00	40.00	57.00	40.50	36 50	46.50	22.50	22.50	25.00	16.00	118.50
Date of Sale	30 1912	28, 1912	Sept. 11, 1912 Feb. 6, 1912	Apr. 12, 1912	30, 1912	July 25, 1912	14. 1912		13, 1912	20, 1912	24, 1912	15, 1912	
Da	Мау	Dec	Sept. Feb.		Apr.		Mar		July	Jan.	Feb.	May	July
First Gazette Notice	30, 1911	Nov. 15, 1912	July, 15, 1912 Nov. 15, 1911	31, 1912	15, 1912	May 15, 1912	31 1911		15, 1912	15, 1910	15, 1911	12, 1912	15, 1912 July
First	Apr.	Nov.	July Nov.	Jan.	Feb.		n of C	Apr.	Mar.	Dec.	Dec.	Feb.	Feb.
Date of Capture	15, 1911	15, 1912	June 1, 1912 Sept. 15, 1911	1911	27, 1911	1, 1912	0 1910	9, 1911	25, 1911	1, 1910	20, 1911	1, 1912	15, 1912
Dat	Apr.	0et.		Nov.	Dec.	May,	H do	Jan.	Nov.	Nov.	May	Jan.	Jan.
CLASS OF ANIMAL	Gelding, roan, short tail, feet black to knee, about six years old, branded lazy split key on left shoulder	Oxen, one team, one white and back with one norm broken, one red and white, point of horn sawn off, weight about 1,600 pounds each, no visible brands with bull calf, three years old, branded what Helfer with bull calf, three years old, branded what hopks a hitle like inverted open box sitting on	top of open box followed by C left vertical nall diamond small slanting bar under, on left ribs, there seems to be a Y put on since over the C Gelding, black, branded mule shoe on right hip	line, white along back from tall to point shoulder, no brand	Steer, roan, branded U bar K on right rip, lour years old	Steer, red and white, three years old, while spous on sides and white belly, ears have been bunched, broken horns, no visible brand	Cow, red with white spots on this and believed with white, branded spot in forehead, tall nearly all white, branded inverted Y followed by 4, upper half diamond inverted Y to the terms had been all the proper half diamond	Gelding, buckskin, branded O X, on right shoulder,	Steer, yearling all red, branded H 4, bar under, on left hip	Steer, red and some white, branded inverted P4 lower half quarter circle over on left hlp	Heifer, red and white, branded L K bar over and under, on right hip	Steer, two years old, branded B T upper quarter circle over on left hip	Mare, nine years old, weight 1000 lbs., roan, star in face, branded a figure that looks like a double round topped T on left shoulder, also branded D P with lazy P, followed by a bar with brand branded p hottom on right shoulder.
Address	Entwistle		Kitscoty		:		Gadsby,	Granum	Ferry Point	Olds	:	:	:
Justice	Arnup, A. W Entwistle	Biddell, P. J	Brown, R. E	÷.	Barber, F. H	Brower, I. B	Bottomley, R. E	Blair, James, Granum	Campbell, Fred Ferry Point	Campbell, R. B Olds	:	:	:

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912-(Continued)

Sent to Depart- ment	5 44.33		•		58.35	9.35	33.90	5.88		52.85	5.68	143.16	135 78
Proc'ds Sent to of Depart Sale ment	\$53.00	00 %	15.50		75.00	15.00	55.00	21.00	75.00	60.09	25.00	160 00	155.00
Date of Sale	9 1419	-			8, 1912	23, 1912	24, 1912	25, 1912	25, 1912	1, 1912	12, 1912	1, 1912	3, 1912 155.00 135 78
Ä	Žo.	Apr	Apr.		June	Oct.	Feb.	May	May	Feb.	Apr.	Dec.	Mar
First Gazette Notice	7. 191				Mar. 15, 1912	15, 1912	30, 1911	29, 1912	29, 1911	Nov. 15, 1911	15, 1912	15, 1912	Sept. 30, 1911 Mar.
First) o		Jan.			Aug.	Dec.	Feb.	Feb.	Nov.	Feb.	Aug.	Sept
Date of Capture	9 1911	•			1, 1911	30, 1912	3, 1911	1911	1911	15, 1911	1912	30, 1912	15, 1911
ದಿಶ	, act	, Jec.			Dec.	Apr.	Dec.	Dec.	Nov	May	Jan.	Apr.	Apr
CLASS OF ANIMAL	Ox, light red, with little spot on forehead, white strip along top of his back, white belly, underbit on left ear, weight about 1400 pounds, well broken, dehorned, indistinct brand on left shoul-	Stear red with white spots, hind legs white, white under belly, plece cut out of side of right ear, left ear cut or frozen off, about 18 months old,	Steen black with white under belly, white spot on right shoulder, some white on left flank, white spot on each hind foot, mulley, no visible brand	Mare, bay, weight about 900 pounds, age about 12 years, branded script capital M, on left shoulder, left vertical quarter circle, and what looks like a lazy short handled two-tined fork on left.	7 on right hip, lazy B on right to P with lazy S over on right shoulder itskip, black mane and tail, age about the board of the points of the	brand brand	. Matre, pay, twerve years out, about 1200 pounts, branded S on right shoulder	flanks, tip of tail white, white underline, branded J T lower quarter circle over, on left ribs Golding, bay, about seven years, old, branded U	rething to the left lonowed by D connected at bottom, on left jaw, and 2 V, on right Jaw	Gelding, sorrel, white star on forehead, both hind feet white, weight about 1000 pounds, branded of with rings from the forest with the start of the feet white, weight about 1000 pounds, branded of with rings from the forest with the feet white weight and the feet white weight about 1000 pounds.	over it with F connected at the top of the lazy M, on left shoulder, and lazy M with F connected at top on left thigh	Mare, black, five years old, branded U J monogram lower half diamond under, on left shoulder	star, and the figure 2 or an anchor on left shoulder, white star, hind feet white
Address	Grassy Lake	Camrose	:		:	Locombo	Pine Lake	:	Youngstown	Holden	į	Stavely	:
Justice	Carruthers, P Grassy Lake	Corneille, C. G Camrose	:	:	:	('Granthone N T T Comple	Charley, W. R Pine Lake	: : :	Church, E	Campbell, W Holden	}	Cressman, M	•

27.60	3.25	3.88	13.63 .17	2.09	30.58	:	41.95 6.70	37.58	.88 93.00	22.75	70 80 80	24.20 5.33	14.13	4.30 2.00	
45.00	27.50	2 0 00	30.00 16.50	18.50	41.00	15.65	60.00 20.00 20.00	67.00	15.50 100.00	31.00	20.50	\$7.00 17.00	27.00	11.00 16.00 15.00	
22, 1912	1, 1912	1, 1912	1, 1912 1, 1912	5, 1912	9, 1912	7, 1912	6, 1912 6, 1912 9, 1912	22, 1912	3, 1912 31, 1912	29, 1912	2, 1912	22, 1912 7, 1912	7, 1912	7, 1912 7, 1912 16, 1912	
Feb.	Mar.	Apr.	Apr.	Apr.	Jan.	May	Mar, Feb. Feb.	June	Feb. May	Feb.	Mar.	June May	May	May May Feb.	
30, 1911	15, 1911	31, 1912	31, 1912 31, 1912	30, 1911	31, 1911	15, 1911	31, 1911 30, 1911 31, 1911	31, 1912	15, 1911 30, 1912	31, 1911	15, 1912	29, 1912 29, 1912	29, 1912	29, 1912 29, 1912 30, 1911	
Dec.	Dec.	Jan	Jan. Jan,	Dec,	Oct.	Dec.	Dec. Nov. Dec.	Mar.	Dec. Apr.	Dec.	Jan.	Feb.	Feb.	Feb. Nov.	,
2, 1911	1, 1911	10, 1911	10, 1911 10, 1911	1, 1911	1910	1911	1, 1911 11, 1911 23, 1911	1, 1912	1, 1911 1912	31, 1911	23, 1911	1911 1911	1911	1911 1911 15, 1911	
Dec.	Dec.	Dec.	Dec. Dec.		Dec.	Nov.	Nov. Oct.			Aug.	Dec.	Nov. Dec	Dec.	Dec. Nov.	
Steer, roan three years old, left ear off, no brand	Cow with calf, branded J R, on left shoulder, small red calf at side	Steer, red, yearling, stub horns, branded T With treversed J monogram connected at bottom quarter circle over, on left hip	Heifer, red, yearning, white spot our figure anouncer, as tittle white on belty, branded J R upper quarter circle over, on left shoulder.	Heifer, red, yearly star and strip in face, white strip on strip in shoulder and down left hip, no brand	Pony mare, roan, weight 750 pounds, black mane and tail, branded heart pointing down with I inside, on left shoulder and J with lazy D under on right shoulder.	Heifer, red two years old, end of right ear cut off and split, branded upper half diamond with two unreadable characters below on right side	Gel Pig	Steer, black, little white under flank and three years old, branded either H. F., or monogram J. H. bar over, on left and shenard's crook T. on right flank.	Steer, brindle, mulley, coming two years old, small for age, indistinct brand on left ribs	Gelding, Diack, ageu, no vising viana. Mare, porry, buckskin, weight 850 pounds, no visible	Gelding, bay, three white feet, and white face about nine years old, weight about 700 pounds, branded N bar under and upper quarter circle over, on left shoulder, also script F followed by C or it might be an imperfect C on right flank.	gʻ∶g	Cow, red and white, horns turned in, no visible	Helfer, dark red, horns almost straight up, no vis- ible brand. Helfer, light roan, no visible brand. Steer, red, no visible brand.	
Culham	D Daysland	:	:		Crossfield	Perbeck	Content	Foreman	Ohaton	Nanton	Brownfleld	Elk Point	Hallway Lane	" " Strome	
Creighton, A. J Culham	Davidson, D	:		: :	Davie, John S Crossfield	Davies, Chas. A Perbeck	Dought, L. M		Fleming, A. W	Fetherston, F. W. Nanton Farr, Leslie Airdrie	Graham, J. H Brownfleld	Garnham, S. H, Elk Point	Green, Albert	Hunter, W. E Strome	

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912—(Continued)

Justice	Address	CLASS OF ANIMAL,	Da 18	Date of Capture	First	First Gazette Notice		Date of Sale	Proc'd3 of Sale	Sent to Depart- ment
Hunter, W. E Strome		Heifer, blue roan, branded inverted Y followed by H, bar over, on right shoulder	Nov.	1, 1911	Jan.	31, 1912	May	13, 1912	\$13.00	69
:		brand visible.	Apr.	1, 1911	Feb	15, 1912	Apr	8, 1912	18.50	2.00
Huston, W.CWiste	Wiste	ded 8, on left flank	Nov.	1, 1911	Dec.	15, 1911	Feb.	10, 1912	91.00	71.75
Graham J. H. Brownfield	Brownfield	white legs to knees, black mane and tail, branded a circle with a small circle over on left shoulder white the small circle over on left shoulder white the small circle over on left shoulder white the small circle over on left should be	Aug.	1, 1911	Mar.	31, 1912		June 24, 1912	126.00	109.25
		brands visible	Feb.	21, 1912	Mar.	15, 1912	May	28, 1912	35.00	20.65
Grey, W. B Stettler	"Stettler	like upper half diamond followed by an anchor, lower quarter circle, on right hip	Nov Nov.	1, 1911 1, 1911	Apr. Apr.	15, 1912 15, 1912	July	5, 1912 5, 1912	40 00 23.00	25.00 8.23
		of jaws, a W of white hairs in forehead, short thorns, two years old, no Visible brand	Dec.	15, 1911	Jan.	31, 1912	Apr.	3, 1912	21.00	3.95
:		of, muney, red, tising live years out, mose four out for lip, ear slift, short tail, work ox, no brand Heifer red three years old hranded X O on right	Dec.	15, 1911	Mar.	15, 1912	June	22, 1911.	71.00	53.33
Groham, W. M Lake View	Lake Vjew	Helfer, red and white, no brand visible Gow. red, white belly, coming three years old, brand cow. red, white belly, coming three years old, branded of A followed by T with a small 3 connected at	Oct. Nov. Jan.	1, 1911 25, 1911 20, 1912	Feb. Feb. Feb.	15, 1912 29, 1912 15, 1912	Aug. May May	3, 1912 1, 1912 8, 1912	35.00 21.00 16.50	16.58 5.23 1.05
Hogg, G. R Huxley.	Huxley.	the end of the top of the 1, on right ribs, brand is badly blotched. Helfer rightne three years old red and white snots	Jan.	20, 1912	Feb.	15, 1912	May	8, 1912	26.50	10.80
	:	Heifer, light roan, three years old, branded inverted rownlock followed by Hollowed by Hollowed by Hollowed by	Dec.	15, 1911	Feb.	15, 1912	Apr.	8, 1912	25.00	12 15
Hussey, E. S Evarts.	Evarts	bar, on left ribs of the control of	Jan.	5, 1912	Feb	15, 1912	May	2, 1912	16.50	1.50
:	:	over, on left shoulder	July	1911	Dec.	31, 1911	Sept.	21, 1912	77.00	
Hallman, J Acadia Valley	Acadia Valley	stripe in f	July	1911	Dec.	31, 1911	Sept	21, 1912	40.00	28 80
		left hip	June	1, 1911	Feb	15, 1912	Nov.	13, 1912	105.00	89.75

;	31.75	32.15	20.00	7.80	7.80	3.80	3.50	14.15	15.50		45.50	2.70 1.90 1.67	:	18 50
	42.00	22.00 47.00	35.00	22.50	22.50	18.00	20.00	30.00	32.00	9.00	64.00	18.00 16.00 17.00	14.00	32.50
	31, 1912	2, 1912 2, 1912	23, 1912	23, 1912	23, 1912	27, 1912	27, 1912	14, 1912	5, 1912	15, 1912 29, 1912	13, 1912	28, 1912 28, 1912 8 , 1912	15. 1912	27, 1912
	Oct.	Mar. Mar.	Apr.	Apr.	Apr.	June	June	Feb.	Mar.	Apr. Oct.	Apr.	Feb. Feb. Mar.	Apr.	Apr.
	30, 1912	31, 1911 30, 1911	15, 1912	15, 1912	15, 1912	15, 1912	15, 1912	15, 1911	14, 1911	28, 1912 30, 1912	15, 1912	15, 1911 15, 1911 31, 1911	15, 1912	15, 1912
		Dec. Dec	Feb.	Feb.	Feb.	Mar.	Feb.	Now.	Dec.	Feb. June	Feb.	Dec. Dec. Dec.	Feb.	Feb.
	8, 1912	8, 1911 8, 1911	1, 1911	1, 1911	1, 1911	1, 1911	1, 1911	1, 1911	1, 1911	1, 1911 5, 1911	11911	15, 1911 15, 1911 1, 1911	1, 1912	20, 1912
1	June	Nov. Nov.	Dec.	Dec	Dec.	Dec.	Nov	Nov.	Aug.	Dec. June	Dec.	Oct. Dec.	Jan.	Jan.
Gelding, sorrel chestnut, white strip on face, flax mane and tail, right hind foot white to knee, white spot on withers, about nine years old, no	Cow and calf, red and white, branded J. G., on right neck, advertised as blotched, one front foot froz	en off, red and white heifer calf at foot Cow, large red, branded M U — on left ribs Cow, red, seven or eight vears old, tip broken off	left horn, branded lazy double rowlock, on left side	Institute, mulley, two years old, red roan, branded lazy double rowlock on left side	on each htp, branded 5 followed by double row- lock, bar over, on right ribs, also 9 U followed by a figure that looks like H or K, on left ribs. Helfer, red and white, indistinct brand on right	رة. ب	left shoulder, looks like a vertical key followed by a pound sign	two white spous on each side of shoulder, white on both flanks and under belly, branded Y, bar over, on left shoulder, might be a wire cut mark. Heifer, red, cross breed, shorthorn two years old.	Heifer, yearling, red, in poor condition, small in size.	apparently under one year, no brand Hog, Yorkshire, about 150 pounds, no marks visible. Mare, buckskin, star in forehead, dark mane and tall, three white feet, some white on fourth	foot, about six years old, weight 800 or 900 lbs., branded circle on right shoulder	Steer, roan, one year old, no brand Mare, black, indistinct brand		I, on half
Claresholm	Wheat Belt	Westerdale	:	:	:	:	(Tister	;	:	" Ferintosh.	Actor		Lochend	
James, C. W Claresholm	Jones, C. R Wheat Belt	Kembry, R. A Westerdale	:	: :	: :	• • • • • • • • • • • • • • • • • • • •	Kennedy, Thomas Ulster	:	:	" " Kuhnke, F	Trofting II.	", ", ", ".	aw, J	

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 19'2-(Continued)

Justice	Address	CLASS OF ANIMAL	Cal	Date of Capture	First	First Gazette Notice	A	Date of Sale	Proc'ds of Sale	Sent to Depart ment
Lindley, T. P Stoney Plain Layton, S. J Taber	Stoney PlainTaber	Mare, about 1000 lbs., four white feet white stripe running over nose, unreadable brand on right shoulder Mare, grade, bay, one year old, bald face, two white	Now	1911	Dec.	30, 1912	Mar.	2, 1912	\$90.00	\$76.35
:	:	m	Sept.	28, 1910	May	31, 1911	Mar.	13, 1912	88.00	81.73
		Col., state, blown, one year our past, weight 600 to 700 lbs., no visible brand	May	2, 1912	Sept.	14, 1912	Oct.	14, 1912	40.50	28.00
		Gelding hav grade hrends 72 smell divide under	Nov.	1, 1911	Aug.	15, 1912	Oct.	23, 1912	26.00	20.41
:	*	right shoulder sinail circle right shoulder grade branced C on white shoulder	Nov.	1, 1911	Aug.	15, 1912	Oct.	23, 1912	121.00	114.01
		> ; ₹	Nov.	1, 1911	Aug.	15, 1912	Oct.	23, 1912	85.00	77.91
		brown grade branded reversed N with	Nov.	1, 1911	Aug.	15, 1912	Oct.	23, 1912	76.00	69.13
		cle under, on left shoulder black, grade, yearling past, no brand	Nov.	1, 1911	Aug. Aug.	15, 1912 15, 1912	00ct.	23, 1912 23, 1912	107.00	99.50 60.69
	Amisk	sorrel, with colt,	Nov.	1, 1911	Aug.	15, 1912	Oct.	23, 1912	60.00	53.53
Ludtke, E. C	Bow Island	branded F with lazy B under, on left shoulder. Mare and colt, buckskin pony mare, four years old, white stripe in face, both hind ankles white, wellert & & nonnde branded hins even on left	Oct.	1910	Sept.	15, 1911	Mar.	23, 1912	115.00	97.40
:		I white face, four white leg	Aug.	22, 1911	Aug.	31, 1911	Feb.	23, 1912	50.00	43.35
:		, branded R. R. on left should , about 900 pounds, branded	Nov.	1, 1911	Mar	30, 1912	June	26, 1912	33.00	22.73
Long. F. J	Gadsby	wards each other at the top, on right shoulder Gelding, buckskin, black legs, two white fare no brand or electroctus went indition	July	1911	Oct	15, 1911	June	6, 1912	100 00	79.65
Mason, Wm Bon Accord	Bon Accord	weight about the bounds, age about 6 years Cow. red. about three years old some with behind	Oct.	8, 1912	Oct.	31, 1912	Jan.	9, 1912	20.00	16.65
:		shoulder, dehorned, lark bay, work hol foot, small white	Nov.	26, 1911	Dec.	15, 1911	Feb.	3, 1912	27.00	14.24
Milligan, RPine Lake	Pine Lake	white on both forefeet, ten years old, weight about 1200 pounds, no visible brand	Aug	27, 1912	Sept.	15, 1912	Рес	18, 1912	46 00	36.70
	_	S, on right hip	July	15, 1912	Nov	30 1919	Dec	30 1019	00	£ 20

<u>-</u>	Matthias, E. H Castor	Gelding, bay, about twelve years old, about 1350 pounds, branded a triangle followed by 2, on								
:		int nine vears old a	Nov.	5, 1911	Dec.	31, 1911	Feb	3, 1912	132.50	110.55
	: :	ds, Indistinct brand on shoulder.	Nov.	5, 1911	Dec.	31, 1911	Feb.	3, 1912	170.00	146.85
=		branded T X on left jaw, and lazy S, on right shoulder	May	1, 1911	Dec.	30, 1911	Feb.	26, 1912	115.00	94.60
:	:	branded T X, on left jaw, and R, on left thigh.	Мау	1, 1911	Dec.	30, 1911	Feb.	26, 1912	115.00	94.60
:	:	pounds, branded E F, on right thigh	Nov.	1, 1911	Jan.	15, 1912	Mar.	29, 1912	150.00	118.50
:	:	about 900 pounds, no visible brands	Jan.	31, 1912	Feb.	15, 1912	Apr.	12, 1912	80.00	61.70
	:	Mare, 11gt. Duckshil, about four years out, write mane and tall, blaze on forehead, branded arrow-head point up, had very short stem on left taw.	Apr	1, 1912	Ang	15 1912	Nov	12, 1912	75	65 25
	:	Mare, cayuse, dark grey, two years old, weight 850 pounds, wire cut on left shoulder, no visible brand		2, 1912	Sept.	Sept. 15, 1912	Nov.		61.50	49.60
Mennie, Kobt. H Andrew	:	Gedding, red, small white star on forehead, short cut tall, six or seven years old, about 900 pounds, no brand, visible	Oct.	15, 1911	Nov	15, 1911	Jan.	18, 1912	25.00	11.68
	:	ay, w te, w shou	May	1, 1911	Aug.	15, 1911	Mar.	22, 1912	78.00	67.50
Mills Hanny T. C. Transition	:	Heifer, red, white spots on belly, white spot in forehead, about two years old, no brand visible	Oct.	11911	Feb.	15, 1912	Apr.	23, 1912	14.50	8.10
C. B Erskine		Gending, Sorrer, about twelve years out, wire cut on left hind leg, branded F. on right shoulder Steer, one vear old, red, branded J followed by a	July	1912	Nov.	15, 1912	Dec.	29, 1912	40.00	25.80
:	:	reversed E, lower quarter circle over, on right ribs Ster, red, three years old, Hereford, markings, white	Dec.	20, 1911	Jan.	15, 1912	Mar.	23, 1912	20.00	1.95
• •	:	on nead and obely, branded alzy square outloned U followed by S, bar under, on right ribs Steer, roan, two years old, branded inverted Y follow-	Nov.	9, 1911	Dec.	31, 1911	Mar.	26, 1912	35.00	18.31
		ea by those quarter circle over, on left ribs, two notches in right ear, one notch in left ear Heigh, he white faced, three years old, branded a half-those white faced, three years old, branded a wicht who jet sold in the control in the cont	Dec.	1, 1911	Jan.	15, 1912	Apr.	9, 1912	33.00	16.56
Crossfield		objected visited on tight they, it focks line a selfollowed by a blotched that over	Nov. Jan.	30, 1911 1, 1912	Dec. Mar.	15, 1911 15, 1912	Mar. July	30, 1912 16, 1912	37.00 76.75	$\begin{array}{c} 20.46 \\ 71.35 \end{array}$
Markeberg, D. J Markerville		brand Heifer, roan, with red neck and head, star in fore- ther, roan, with red neck and head, star in fore- thered, about two years old, very indistinct brand	May.	1, 1912	Мау	31, 1912	Nov.	1, 1912	85.00	79.00
		on right hip, might be a reversed L followed by two bars, one above the other slanting to the right	Dec.	15, 1911	Jan.	15, 1912	Mar.	20, 1912	21.00	4.83

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912—(Continued)

Justice	Address	CLASS OF ANIMAL,	ជួជ	Date of Capture	First	First Gazette Notice	Ā"	Date of Sale	Proc'ds of Sale	Sent to Depart- ment
Markeberg, D. J. Markerville	Markerville	Gelding, black, right hind hoof white, wire cut on same leg, weight about 1000 pounds, branded homes-shoe nointing down on left thingh	The	101	T and	15 1919	He H	94 1919	836.00	200 A
:	:	Mare, bay, both hind feet and right front foot white, star in forehead, weight about 900 pounds, branded	; 	1101 (01						
McLean, D B	Mannville	horseshoe pointing down, on left thigh	Dec. Nov.	15, 1911 22, 1911	Feb.	15, 1912 15, 1912	Feb. May	24, 1912 15, 1912	9.25	42.97
McCue, R.		yenow with winter spots, about told, no visible brandthree years old, spot in forehead,	Oct	4, 1911	Jan.	15, 1912	Mar	21, 1912	8 20	:
McDenald, J S	Sedgewick	white between forelegs and on b 12 or Y 2 with small inverted V over 0s. The brand is indistinct	Nov.	1, 1911	Mar.	15, 1912	May	28, 1912	30.00	14.70
Mention	3.7	white stripe in face, weight about 800 pounds, branded lazy W D monogram, on left shoulder, horizontal bar with vertical bar connected at each end underneath with P over, on left thigh.	Oct	13, 1911	Feb	15, 1912	Apr	23, 1912	30 00	13.38
McFetridge, G H Consort	Consort	Cow, black, pranded a figure that looks like a split key, point up, followed by a printed A bar under, on left ribs	Nov.	25, 1911 10, 1911	Dec.	15, 1911	Jan. July	30, 1912 12, 1912	36.00 55.00	17.25
: :		Mare, pinto, branded T inverted Y, on right shoulder, and reversed C G, bar over, on left hip Gelding, roan, weight 1000 pounds, nine years old.		10, 1911		30, 1911	July	12, 1912 125.00	125.00	111.30
		branded lazy split key on left shoulder, rowlock on left thigh, and what looks like half lazy reversed L with half lazy 6 stroked through it on right hip, also X with circle on ton at left end.								
McLeud, J. C Edgerton	Edgerton	on right hip ted and white spotted, white Heifer, two years old, red and white spotted, white head, has horns, two under left eye, no brand		June 15, 1912	June	29, 1912	Sept	23, 1912	30.00	24.60
McKnight, W A	Leduc	visible Gelding, light chestnut or dark sorrel, ten years old, weight 1000 pounds, white star on forehead	Nov.	15, 1911	Feb	29, 1912	June,	17, 1912	46.00	31 80
Niddrie, Wn	Mound	light colored mane and tail, no visible brand Heifer, two years old, little white on belly, branded J. K bar on left ribs,, and inverted Y followed by	June	1, 1912	Oct.	31, 1912	Dec.	28, 1912	79.00	63.02
Neilson, J. H Mannyberries	:	Y upper half diamond over, on right ribs	Dec.	1, 1911	Dec.	15, 1911 Mar	Mar	5, 1912	19.0r	4 00
		on left side	Mar	1, 1912		June 15, 1912	Aug	13, 1912	30 00	22 25

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912—(Continued)

Justice	Address	CLASS OF ANIMAL	Date of Capture	Date of Capture	First Gazette Notice	azette ice	Dat	Date of Sale	Proc ds Sent to of Depart Sale ment	Sent to Depart ment
Stacey, Jas Magrath	Magrath	Gelding, black, branded L X on left thigh, and			,	9				
ant, Jas	Serpeant, Jas Alterado	Pony, black, gelding, about 1,100 pounds twelve verse old hyparad hy parady twelve	Jan.	7, 1912	nue 1	une 15, 1912	Sept.	30, 1912	\$71.00	\$65.30
:	:	r with small colt running	July 2	20, 1911	Aug. 1	15, 1912	May	9, 1912	50.00	42.55
an, O. D	Sullivan, O. D Hardisty	white spot in face, two white hind feet, no visible brand Steer, red with white face, and belly, two years old,	July 2	20, 1911	Aug. 1	15, 1912	May	9, 1912	66.00	58.50
an Wm	Strovan Wm Darhack	branded S U with two quarter circles over, on right hip the trace of t	Oct. 1	15, 1911	Nov. 1	15, 1911	Feb	22, 1912	21.00	7.00
Shantz, O. S	Didsbury	Cow, roan, drooped horns, branded U.P. with upper	Jan.	1, 1912	Jan. 3	31, 1912	Mar.	25, 1912	29 00	13 58
:		quarter circle under and lazy double two-tined fork over, on left ribs	Sept.	1, 1912	Mar. 1	15, 1912	May	22, 1912	20 00	36.50
:	:	right hind foot white, right front foot grown mental front foot foot front fro	Apr. 1	15, 1912	May 3	31, 1912	Aug.	19, 1912	12.50	2.70
		Mare, bay, white strip in face, branded 7 on left	Nov. 1	15, 1911	Apr. 1	15, 1912	July	4, 1912	25.50	10.25
e. W. B	Thorne, W. B Aldersyde	Jaw, 1423 A. On left Shoulder and reversed K. On left flank Gelding two vears old white star in foreband two	May 1	15, 1912	June 3	30, 1912	Sept.	10, 1912	75.00	64.30
		white hind feet, hay, no brand visible	May	1911	June 1	15, 1911	May	4, 1912	12.00	5.15
:	*	Mare, bay, aged hranded unner half orde followed	May	1911	June 1	15, 1911	May	4, 1912	10.00	5.20
	:	Mare, sorrel, probably ten years old, white strip in face, white hind feet branded reversed I.	May	5, 1911	June 1	15, 1911	May	14, 1912	18.00	9.51
:	:	Mare, bay, nine or ten years old, weight about 1050 pounds, collar marks on shoulder, branded what looke 11050 pounds, collar marks on shoulder, branded what	Jan. 2	24, 1912	Apr. 3	30, 1912	Aug.	8, 1912	65.00	57.08
:	:	isons and monoplant from the subuner, trained is blotched the star, left hind foot white, advertises, but white satar, left hind foot white, advertises, compare some old becaused.	Jan. 2	24, 1912	Apr. 3	30, 1912	Aug.	8, 1912	60.00	52.25
		F over, on left shoulder	Dec.	1911	1911 June 30, 1912	0, 1912	Nov.	9, 1912	00 09	50 80

								~	10 00		io es
37.43 31.50	89.15	24.50	4.70		96.	$\frac{18}{9.40}$	24 83 143.05 84.70	56.93	28.65		6. 85 6. 11.
45.00	48.00	40.00 22.00 36.50	21.00	14.00	17.00	35.00 25.00	37.00 160.00 100.00	73.00	44.00 35.00	23.50	29.00
9, 1912	1, 1912	1, 1912 1, 1912 26, 1912	26, 1912	26, 1912	11, 1912	11, 1912 25, 1912	25, 1912 27, 1912 27, 1912	29, 1912	23, 1912 17, 1912	3, 1912	12, 1912 24, 1912
Nov. 8	May May			Feb. 3		May Mar.	May Feb. Feb.	Feb.	Mar Apr.	July	Feb.
30, 1912	1912	31, 1912 31, 1912 15, 1912	15, 1911	15, 1911	15, 1912	15, 1912 15, 1912	31, 1912 31, 1911 31, 1911	15, 1911	15, 1912 31, 1911	29, 1912	30, 1911 15, 1911
June 3 Aug.	Mar.			Dec.	Feb.	Feb. Jan.	Mar. Dec. Dec.	Dec.	Jan. Dec.	Feb	N. v
8, 1911	1, 1911	1, 1911 1, 1911 1, 1911	25, 1911	25, 1911	28, 1912	28, 1912 15, 1911	6, 1911 1, 1911 1, 1911	1911	20, 1911	6, 1912	1911
Dec.	Nov.	Nov. Nov. Dec.	Nov.	Nov.	Jan.	Jan Dec.	Oct. Dec. Dec.	Nov.	Nov. Dec.	Jan.	Nov.
Thorne, W. B Aldersyde Filly, black, branded monogram lazy H lazy D, on left shoulder	Towns, A. A Haneyville Cow, light roan, seven years old, round hole in left ear, indistinct brand on left thigh, it looks like a lazy a with half circle over Helfer, red roan, three years old, mulley, no visible thread roan, three years old, mulley, no visible	", ", "Heifer, red roan, two years old, no visible brand Thomson, E. V Dog Pound Gelding, sorrel, four years old, white face, four white face, mo visible brand	Turner, W. E Ponoka Mare, pinto, aged, branded J J on right stifle, crip- pled in both front feet	in, A. R Rumsey	"" "" "" "" "" "" "" "" "" "" "" "" ""	Trayer, B. Whitebrush Helfer, yearling, red and white, no visible brand visible brand in the piper.	CastorBed Deer		shoulder, withe on time feet, and over, shoulder, shoulder shoulder shoulder shoulder steer, read of significations and every significations and every seer, shoulder shoulder shoulder steer, read of significations and every seer, and every seer, should be	Manfred Stee	

SALES OF ESTRAY ANIMALS UNDER THE STRAY ANIMALS ORDINANCE FROM JANUARY 1st TO DECEMBER 31st, 1912-(Continued)

Proc'ds Sent to of Depart. Sale ment	\$101.90	2.85	28.88	72.30		55.05	19.92	11.60	59.90 31.75	92 90	55.85	7.45	12.85	17.70	28.20
Proc'ds of Sale	\$120.00	18.00	39.00	80.00		65.00	48.00	35.00	75.00 46.00	110.00	72.00	22.00	25 00	30.00	46.00
Date of Sale	Mar. 15, 1912 \$120.00 \$101.90	23, 1912	18, 1912	31, 1912		29, 1912	23, 1912	13, 1912	21, 1912	27, 1912	27, 1912	27, 1912	27, 1912	23, 1912	3, 1912
g,	Mar.	Mar.	Jan,	July		Oct.	Feb.	Apr.	Mar. Mar.	Apr.	Apr.	Apr.	Apr.	Apr.	June
First Gazette Notice	15, 1912	15, 1912	15, 1911	15, 1912		Aug. 15, 1912	15, 1911	31, 1912	15, 1912 15, 1912	31, 1912	31, 1912	31, 1912	31, 1912	31, 1,912	15, 1912
First	Jan.	Jan.	Aug.	May		Aug.	Dec	Jan.	Jan. Jan.	Jan.	Jan.	Jan.	Jun.	Jan.	Feb.
Date of Capture	1, 1911	1911	17, 1911	12, 1912		1, 1912	15, 1910	15, 1911	14, 1911 14, 1911	1911	1911	20, 1911	1, 1911	1, 1911	15, 1911
คือ	Nov.	Nov.	May	Apr.		Jan.	Aug.	Nov.	Oct.	June	June	Sept.	Dec.	Dec.	30 Nov.
CLASS OF ANIMAL,	Colt, horse, three years old, bay, white face, hind legs white, branded R. A. bar under, and bar over, on left thigh	looks like a Y or an inverted bell, and two reversed 3's under, on right ribs. Cow, brindle, has horns, about eight years old,	branded inverted U with U over connected, 101- lowed by law Y, on right side of neck Mare ,sorrel, about six years old, blotched brand on	left side of jaw, both hind legs white, right front foot white, star in frostebad, gray hairs in mane and tail, weight 1250 pounds, white spot on left eye	Gending, gray, weight 350 pounds, about six years both blind feet and left front foot white, branded monogram P L, on right shoulder, and 7, or reversed inverted L with short horizontal	hip	Colves, two helfer, one red, white star on forehead,	one red and white, white star on forehead, no brands	Mare, bay, about eight of three years out, branded J, on left shoulder, findistinct brand	Mare, dark bay, white spot on forehead, about four years old, branded U, on right shoulder	forehead, no visible brand	Heifer, black, two years old, part of one ear cu	brand	old no visible brand	on foreign white spot back of foreleg, no brand
Address		Barons		:		,	Kingman	*		Cnigwell	:	:	:	•	•
Justice	Wilcox, J. B Manfred	Welsh, McKenzie Barons	:	:	•		Whillons, K N Kingman		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Whitten, A. L Chigwell	:	:	:	TT C wooden	Willison, G. G Walliving

	19.08	23.05	
American	30.00	35.00	
	26, 1912	2, 1912	
	Mar.	Jan.	
	15, 1911	15, 1911	
	Nov.	Oct.	
=	15, 1911	1, 1911	
	Oct.	May	j
Jelding, pony, bay, about 700 pounds, white hind feet, branded reversed S on right thigh, and L with lazy S monogram) over, on right shoulder.	four years old to the state of	figure that looks like a turnip on right shoulder	
Whiting, W. H Lawsonburg Ge	William T T mostly		

ENTIRE ANIMALS.

During the year the following animals were taken up and sold under the provisions of The Entire Animals Ordinance:

SALES OF ESTRAY ENTIRE ANIMALS UNDER THE ENTIRE ANIMALS ORDINANCE, FROM JANUARY 1st TO DECEMBER 31st, 1912.

Barber, F. H. Vermillon. dark brown, two years old, old scar near knee, white strip in face, small inferior animal, no visible brand. Cornellle, C. G. Camrose. Stallon, black, white spot on forehead, white spot on the port of nose, about two years old, no visible brand. Campbell, Wm Youngstown. Bull, about 14 months old, red, no visible brand. Bull, black, one year old, red along back and in head. Bull, black, one year old, red along back and in head. Stallion, bay, two years old, white star and strip, white hind feet, branded 2 with circle around it, on right hip. Bull, red, yearling, star, strip in face, white strip on shoulder, and down left hip, no brand. Bull, red, and white, no visible brand. Shoulder, and down left hip, no brand. Shoulder, and down left hip, no brand. Shoulder, and and white, no visible brand. Shoulder, and and white, no visible brand. Shoulder, and and white, about nine months old, no visible brand. Wheat Belt red, no visible brand. Shoulder, and on visible brand.			_				a	Sale	Sale ment
		Aug. 14, 1912		Aug. 31,	31, 1912 No	Nov. 9, 1	9, 1912 \$8	\$50.50	
	_	May 13, 1 June 6, 1	1912 N 1911 N	May 31, Nov. 15,	31, 1912 Ju 15, 1911 Fe	June 28, 1912 Feb. 1, 1912		57.00 10.00	37.10
	red around nose, no visible brand		1912 J	Jan. 15,	15, 1912 A	Apr. 12, 1912	912	9.50	
		June 22, 1	1911 J	July 15,	15, 1911 Au	Aug. 14, 1912		31.00	14.03
	shoulder, and down left hip, no brand	Nov. 1, 1 Nov. 15, 1 Oct. 23, 1	1911 1911 1911 1911	Dec. 15, Nov. 30, Dec. 31,	15, 1911 Ar 30, 1911 Ja 31, 1911 Fe	Apr. 5, 1 Jan. 31, 1 Feb. 9, 1	1912 1 1912 1	15 00 14.00 20.00	.07
:		Nov. 7, 1 Nov. 8, 1	7, 1911 N 8, 1911 I	Nov. 30, Dec. 30,	30, 1911 Fe 30, 1911 Ma	Feb. 3, 1 Mar. 2, 1	1912 1 1912 2	11.50 23.50	13.95
		Dec. 1, 1 Jan. 9, 1	1, 1911 9, 1912 J	Jan. 3, Jan. 15,	3, 1912 Ma 15, 1912 Ma	Mar. 19, 1912 Mar. 8, 1912		34.00	6.00 19.65
		July 1	1911 N	Nov. 15,	15, 1911 Ja	Jan. 20, 1	20, 1912	12.50	:
		Aug. 4, 1	4, 1912 A	Aug. 15,	15, 1912 Oct.		1, 1912	35.00	12.85
Pinnell, F. Alix Bull, rising one year			6, 1912 S	Sept. 15,	15, 1912 Oc	Oct. 19, 1912		90.00	67.95
Bentley						_		18.50	:
Ross, John Lacombe Stallion, brown, mi	Stallion, brown, mane clipped, weight about 700	Nov. 1,	1, 1911 F	Feb. 15,	15, 1912 Ma	May 4, 1	4, 1912	25.00	:
Sobey, R. E. High River. Bull, black, on Year Shantz, O. S. Oldsbury. Bull, black, on exemple the constant of		June 5, Dec. 1, Feb. 7, July 22,	5, 1912 1, 1911 7, 1912 122, 1912	June 30. Dec. 15, Feb. 15, Aug. 15,	30, 1912 15, 1911 15, 1912 15, 1912 October	July 27, 1 Mar. 12, 1 Mar. 29, 1 Oct. 25, 1	1912 1912 1912 1912	16 40 15.00 28.50 45.00	1.75 18.60

POUND DISTRICTS.

With the rapid settlement of the Province an increasing demand is constantly being made for the curtailing of the liberties of range stock. The settler has a right to protection, but the fair thing to do in many cases is difficult of decision. Consequently, where the enforcement or non-enforcement of a law depends upon a vote of a majority of the proprietors of land, some disappointment and occasionally hardship is bound to occur. In other cases a few homesteaders may tie up several townships and prevent many herds of stock pasturing.

A large number of pound districts were created during the year and a few cancelled. The following is a complete list of the districts

organized during the year:

No. 1-Township 3, Range 17, excepting Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 17 and 18, all west of the 4th Meridian.

No. 2—Township 4, Range 11, west of the 4th Meridian.

No. 3—Township 4, Ranges 17 and 18, west of the 4th Meridian.

No. 4—Sections 31 to 32 in Township 8, Range 15; Sections 31 to 36 inclusive in Township 8, Range 16; Sections 5, 6, 7, 8, 17, 18, 19, 20, 29, 30, 31 and 32, in Township 9, Range 15; Sections 1 to 30 inclusive and Sections 33, 34, 35, 36, in Township 9, Range 16, all west of the 4th Meridian.

No. 5—Township 13, Range 10, west of the 4th Meridian. No. 6—Township 14, Range 9, Township 15, Ranges 7, 8 and 9, west of the 4th Meridian.

No. 7—Townships 15 and 16, Ranges 1 and 2, west of the 4th Meridian.

No. 8—Township 16, Range 9, west of the 4th Meridian.

No. 9—Township 16, Range 20, west of the 4th Meridian; Township 17, Range 19, west of the 4th Meridian; Township 17, Range 20, west of the 4th Meridian; and Sections 1, 12, 13, 24, 25 and 36 in Township 17, Range 21, west of the 4th Meridian.

No. 10-Township 24, Range 3, and north half of Township 23, Range 3, west of the 4th Meridian.

No. 11-Townships 25 and 26, Ranges 2 and 3, west of the 4th Meridian.

No. 12—Township 26, Range 10, west of the 4th Meridian.
No. 13—Township 27, Range 6, west of the 4th Meridian.
No. 14—Townships 27 and 28, Ranges 7 and 8, west of the 4th Meridian.

No. 15—Township 28, Range 2, west of the 4th Meridian. No. 16—Township 28, Range 6, west of the 4th Meridian. No. 17—Township 29, Range 1, west of the 4th Meridian.

No. 17—Township 29, Range 1, west of the 4th Meridian.

No. 18—Township 29, Range 2, west of the 4th Meridian.

No. 19—Township 29, Range 7, west of the 4th Meridian.

No. 20—Township 29, Range 8, west of the 4th Meridian.

No. 21—Townships 31 and 32, Ranges 7 and 8, west of the 4th Meridian.

No. 22—Township 34, Range 4, west of the 4th Meridian.

No. 23—Township 44, Ranges 11 and 12, west of the 4th Meridian.

No. 24—Townships 64 and 65, Range 21, east half (½) of Townships 64 and 65. Range 22, and west half (½) of Townships 64 and 65, Range 20, all west of the 4th Meridian west of the 4th Meridian.

The following is a list of the animals sold under the provisions of the Ordinance, the proceeds of the sales having been deposited with the Government in a trust account and obtainable by the owner on showing satisfactory proof of ownership:

1

SALES OF IMPOUNDED ANIMALS UNDER THE POUND DISTRICT ORDINANCE, FROM JANUARY 1st TO DECEMBER 31st, 1912.

Sent to Depart- ment		\$ 79.95	62.80	36.00	17.00		7 85	46 97		46.97 7.26	20	90.10	19.95		46.50 32.25	28.50	152.50
Proc'ds Sent to of Depart Sale ment		\$100.00	82.50	55.00	40.00		20.90	27 00		57 00 55.00	9		35.00		65 0n 104.00	40.00	175.00
Date of Sale		3, 1912 \$100.00 \$ 79.95	3, 1912	3, 1912	29, 1912		20, 1912	4, 1912		4, 1912 29, 1912	28, 1912		8, 1912		19, 1912 30, 1912	21, 1912	19, 1912
Da		Oct.	Det.	Oct.	Oct.	č	sept.	Sept.	Č	Sept Oct.	July		Oct.		Nov. Sept.	Feb.	Aug.
First Gazette Notice		Sept. 15, 1912	Sept. 15, 1912	15, 1912	15, 1912		31, 1912	Aug. 15, 1912		15, 1912 30, 1912	June 29 1919	7101	31, 1912		15, 1912 31, 1912	31, 1912	15, 1912
First		Sept.	Sept.	Sept	Oct.		Aug.			Aug. Sept	June		Aug.		Oct. Aug.	Dec.	July
Date of Capture		30, 1912	30, 1912	30, 1912	9, 1912	, ,	20, 101	26. 1912	3	6, 1912	21, 1912		26, 1912		18, 1912 8, 1912	14, 1912	June 19, 1912
C D		July	July	July	Sept.	1	e diy	July	1.1	Sept.	May		July		Sept. Aug.	Dec.	June
CLASS OF ANIMAL,	Gelding, bay, about 1050 pounds, branded J or JT monogram on left jaw and WB quarter circle	under, on left thigh	small cross over connected to right end of the	Mare, bay, about 800 pounds, branded script capital H. with unner half dismond over on right thick	Cow, red and white, dehorned, no visible brand Heifer red branded T reversed I lower control	circle under, on left shoulder, and rowlock Y with the stems of both connected at bottom by a hardren by a stems of both connected at bottom by a	Cow and calf, red with white face, cow branded 88	on left fibs, tag in right ear marked M B 6008, calf not branded, about three months old Steer, red, large brand on right fibs, looks like C	with upper half diamond stroked through the bottom of the C, followed by rowlock, bar, not	Calves, from red and white spotted, no visible brand Mare, light bay, aged, weight about 1100 pounds,	white hind feet, white star in forehead, white spot on nose, branded 16 connected with bar at bottom on left third and 3R, on right shoulder.	Mare and foal, mare, black, about 1050 pounds, with right hind foot about as large as a pail, branded	H 2 on left shoulder. Gelding, bay, white strip in forehead, white on left	hind foot, wire cut on same hock joint, has been saddle horse, weight about 1000 pounds, small	looks like monogram lazy U H, on both laws Pigs. five Fenworth breed, no marks	Shoulder Mars and colf more block broaded died.	orale on left shoulder, and Tronnected by Shan
Address	Irricana	:			Kitscoty		:	:		Beaumont		Dinton	:		Vermilion	Swalwell	
Justice	Gibson, F. W Irricana	:	:		McIvor, J. S Kitscoty Rodgers, A. E Stavely.		:	:	-	Wood, J. O Mitchell, A. E		Orr, Andrew W	:		Oakley, H. C	Miles H I. Borney	MILES, 11.

SALES OF IMPOUNDED ANIMALS UNDER THE POUND DISTRICT ORDINANCE, FROM JANUARY 1st TO DECEMBER 31st, 1912.—(Continued.)

Sent to	80 40	18.90	42.75		8.75 8.75	8.75	56.30	43.10	1 20	7.60	140.25	105.10		1.70	64.05	62.10
Proc ds Sent to of Depart Sale ment-	97.00	40.00	58.00		24.00 13.00 1.00 1.00 1.00	12.00	78.00	65.50	21.50	26.00	155.00	120.00	9	20.00	78.00	76.00
Date of Sale	9. 1912	6, 1912	12. 1912	i i	30, 1912 30, 1912 30, 1912 30, 1912	30, 1912	14, 1912	14, 1912	14, 1912	12, 1912	14, 1912	14, 1912		14, 1912	28, 1912	28, 1912
Da	Sept.	Nov.	Feb.		Dec. Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Nov.	Nov.	:	Nov.	Feb.	Feb.
First Cazette Notice	15. 1912	30, 1912	15, 1912	3	31, 1912 15, 1912 15, 1912 15, 1912	15, 1912	31, 1912	31, 1912	31, 1912	15, 1912	15, 1912	15, 1912	, , , , , , , , , , , , , , , , , , ,	15, 1912	31, 1912	31, 1912
First X	Aug.	Sept.	Jan.	,	Aug. Dec. Dec.	Dec.	Oct.	Oct.)ct.	Aug.	Oct.	Oct.	(Det.	Jan.	Jan.
Date of Capture	15, 1912	20, 1912	15, 1911		10, 1912 22, 1917 22, 1912 22, 1912	22, 1912	11, 1912	11, 1912	11, 1912	6, 1912	3. 1912	27, 1912		21, 1912	12, 1912	12, 1912
Car	July	Sept.	Dec.		Aug. Nov. Nov.	Nov.	Oct.	Oct.	Oct.	Aug.	Oct.	Sept.		Sept.	Jan.	Jan.
	randed M w lder	bout 500 po	randed revare, or it in	nds, two had halter	years old o visible ble brand brand	ild, no visible	s old, branded L.N., on left t, weight 1000	branded what ap- on right shoulder legs below knees,	ed H K 1	N belong	nded II	white, branded	thigh, a quarter	ree year	OR Cor EC	· :+
CLASS OF ANIMAL	Gelding, grey, weight 1400 pounds, branded M with and lazy S under, on left shoulder	Stallion, bay, two years old, weight about 500 pounds, no visible brand	Mare, roan, six to eight years old, branded reversed C followed by an incomplete square, or it might be D followed by reversed E, on right hip	Gelding, bay, about 1000 to 1200 pounds, two white feet, mane and fringe cut short, had halter and tworty-five feet of rope when impounded, brand-	ed 21, on left flank, about ten years old Bull, red and white, six months, old, no visible brand Helfer, white, age six months, no visible brand	Bull, red and white, six months old, no visible brand	Anale, 1901, 7011 white test, place are, whether about what appears to be an imperfect L.N., on left shoulder	pounds, about nine years old, branded what appears to be H L bar under, on right shoulder Gelding, strawberry roan, black legs below knees.	weight 800 pounds, quite old ,branded H K monogram on right thigh.	about 100 pounds	O. left shoulder	right thigh	upper quarter circle over on right thigh, also H upper quarter circle over, and lower quarter circle	Mare, bay, small star in face, about three years old,	Nare hav about two years old branded R	Mare sorrel ared branded lazy B on right hip
Address OF ANIMA	Marrin, Russell Paney Gelding, grey, weight 1400 pounds, b	Stallion, bay, two years old, weight a	Bowen, M. L Maleb Mare, roan, six to eight years old, b C followed by an incomplete squa be D followed by reversed E. on 1	Goddard, E Joddard Gelding, bay, about 1990 to 1209 pour feet, mane and fringe cut short, twenty-five feet of rope when imp	Byers, H. W. Taker Bull, red and white, six months old, new Heifer, white, age six months, no vising " " " " " " " " " " " " " " " " " " "		:	pounds, about nine years old, bran pears to be H L bar under, on nine gelding, strawberry roan, black legs	weight 800 pounds, quite old ,brand gram on Ilght Lilgh			"" "" "" "" "" "" "" "" "" "" "" "" ""	upper quarter circle over on right upper quarter circle over, and lower	under, on left shoulder	no visible brand	

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21 85	28.25	13.35		9	58.40		23.95	3.95	8 25	39.20	4.99		8) 69	25.58	7 2			6.03	::	
20.00	49 00	26.00		9	00.07	45.00	37 00	15.00	20.00	50.00	16.00	5	2 7 8	35 00	75 00	92.00		15.00	18.00	
30, 1912	30, 1912	28, 1912			28, 1912	27, 1912	28, 1912	13, 1912	28, 1912	28, 1912	13, 1912		23, 1912	22, 1912	99 1019			22, 1912	11, 1912	
Oct.	Oct.	Feb.			Feb.	Apr.	Feb	Dec.	Nov.	Dec.	Dec.		July	Apr.		Apr.	: :	Apr.	Mar.	
Sept. 30, 1912	36, 1912	31, 1912			31, 1912	15, 1912	31, 1912	15, 1912	31, 1912	30, 1912	15, 1912		5, 1912	15, 1912		Mar. 15, 1912		15, 1912	15, 1912	61
Sept.	Sept.	Jan.			Jan.	Mar.	Jan.	Nov.	Oct.	Nov.	Nov.		June	Mar.		Mar.		Mar.	Feb	
9, 1912	13, 1912	12, 1912			12, 1912	1, 1912	12, 1912	3, 1912	8. 1912	21, 1912	3, 1912		3, 1912	29, 1912		29, 1912	23, 1312	29, 1912	22, 1912	1, 1911
Sept.	-				Jan. 1	Mar.	Jan. 1	Nov.	Oet.				June	Feb.	i	Feb.	ren.	Feb.	Jan.	
Bull, black and white, dehorned, yearling, no visible	Gelding: Soirel, four white feet, weight 950 pounds,	Gelding, aged, pinto pony, crop eared, indistinct	brand on left shoulder brand on le	Mare, sorrel, about three years out, stand thigh lesembling a suspended mallet, but on	ter circle under, also an indistinct brand on	face, about two	Gelding, bay, aged, branded lazy, B, on right thigh	and an indistiller means of a said and in left delding black, about four years old, lame in left front foot, hranded monogram H L and mono-	gram M F, on let this graph about 1200 pounds. Gelding roan, with halter, weight about 1200 pounds, about eight years old, branded plus sign over	straight bar, on right shoulder	800 pounds, no Visible manu- Mare, brown, white at roots of tail, aged, indistinct hrand on right shoulder, resembling monogram	Mare, bay, weight about 1050 pounds, both hind feet white, wire cut on left hind leg, foretop clipped, has collar marks on, branded upper half diahas	mond with inverted round topped I dide	Gelding, black, about three years old, small white	Spot in totelead, no visione and, white spot in Geding, black, three or four years old, white spot in forehead and on end of nose, branded what looks in the monogene laxy Y.I. the hook of the J turn.	Mare, black, about six years old, branded reversed Mare, black, about six years old, branded reversed by E. on night shoulder, about 900	pounds. left front white. Gelding. brown, aged, weight about 1100 pounds, white sort in forehead and on end of nose, left	knee large, both hind feet white, blotched brand on left shoulder, has collar marks	Steer, red, yearling, white face, slit in brisket. no visible hrand	Calf. bull, hright red, one year old, no visible dation of delding, dappled grey, lame in left foot, branded of delding, dappled figure, on left thigh square without
Joaldale	:	:		:		;	:	:	:	:	;	Raymond		:	:	:	:			Mundare Lost Lake
Pawson, W. H Coaldale	:	:		:		:	:	:	:	:	:	II. deback, Jas		:::::::::::::::::::::::::::::::::::::::	:	:	:		Leng, W. S	Martin. John

HERD DISTRICTS.

Many applications have been made for the organization of Herd Districts in the area outside of that in which they may be formed. It would appear that the provisions of this Ordinance would be acceptable over a much wider area than it now serves.

During the year only three animals were sold under the provisions of the Ordinance. They are as follows:

SALES OF IMPOUNDED ANIMALS UNDER THE HERD DISTRICT ORDINANCE, FROM JANUARY 1st TO DECEMBER 31st, 1912.

of Proc'ds Sent to of Depart- Sale ment	Aug. 2, 1912 Aug. 15, 1912 Sept. 16, 1912 \$ 56.00 \$ 44.65	6, 1912 22.50 6.75	9, 1912 55.00 33.10
Date of Sale	Sept. 16	Dec. 16	Nov. 30
First Gazette Notice	ıg. 15, 1912	ov. 15, 1912	ov 15. 1912
Date of Fi	ug. 2, 1912 At	ct. 22, 1912 No	ct 12, 1912 No
CLASS OF ANIMAL	Mare, dark brown, star in forehead, three years old, Aug. 2, 1912 Aug. 15, 1912 Sept. 16, 1912 \$ 56.00 \$ 44.61	Gelding, sorrel, white strip in face, left find foot white, little white on forehead about fifteen years old, weight 850 pounds, no visible brand	Cow, red and white, about three or four years old, bob tail, good set of horns, no visible brand, spring calf at foot, red and white, steer, no April 12, 1912 Nov. 15, 1912 Nov. 30, 1912 55.00 33.10
Address	Islay	:	Greenlawn
Justice	Wilson, Geo. H Islay		Feinberg, H. A Greenlawn

STOCK INSPECTION.

During the year a number of stock inspectors were appointed at new stations that have gradually risen to importance on old lines of railway, and quite a number at leading points on new lines. With the rapidly growing mileage of new railways each year is likely to see a large increase in the number of stock inspectors. Assistance was again given the Western Stock Growers' Association in maintaining an efficient man as stock inspector at Winnipeg. As a result of this inspector's work a large number of animals were found to have been shipped without authority. The inspector collected from the shipper the market value of all such animals. The amount so collected, together with a correct dscription of the animal and the brands thereon, were forwarded to the secretary of the association who located the owners as far as he was able. A description of the unlocated balance was forwarded to the Department and the animals duly advertised in the supplement to the official Gazette. A number of those advertised arc nearly always claimed. The proceeds of those unclaimed is placed in the general trust account and may be claimed any time within twelve months, after which it passes into the general revenue of the Province.

The accompanying table gives the usual statistics regarding the shipments of stock in the Province:



No. 1.—ROSALIND OF OLD BASING.

Jersey Cow. Owned by C. A. Julian-Sharman, Red Deer, Alberta. Produced from February 25th, 1909, to September 17th, 1912, 37,847.25 fbs. Milk and 2,504.09 fbs. of 80 per cent. Butter.

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			EXPORTS	RTS.		[S [830.]	Local Shinments	Total	-
Shipping Point	Inspector	East	L.	West	st				; ;
		Cattle	Horses	Cattle	Horses	Cattle	Horses	Cattle	Horses
Acme	D I Witwer	30	29.7	1.297	200	2.053	8	3.380	415
Airdrie	Leslie Farr	, .	· :	300	10	164	68	T91	66
Aldersyde	ີຕໍ	6	13	:		:	15	G	†8
Alix		368	:	588	:	488	51	1.045	51
Bashaw	J. A. Windsor	28	:	310	:	366	:	# ?? [*	:
Bassano		:	86	:	117	65	399	65	614
Bawlf	K. O. Eaggen	122	11	117	:	626	†6	865	105
Blackfalds	s.	:	:	181	- 10	253	68	434	44
Botha		:	:	:	:	166	⊣ ,	166	_
Bowden	P. McDermott	9	18	237	 23 21	606	30	1.152	88
Bow Island		52	37	:	:	58 138	49	. 08	98
Brocket	. C. H. Clarke	:	:	:	:	:	6	:	σ.
Brooks	Jas. Gregory	925	103	:	27	2,389	518	3,314	673
Bruce	_	:	:	:	:	:	77	:	34
Calgary	P. D. Sanders.	1,351	1,093	14.389	867	6.950	4,892	22,690	6,283
Camrose	.W. G. Duggan	11	43	110	13	1.725	299	1.846	62 10
Cardston	. F. Falconer	952	102	923	5.5	817	1,089	2,695	1.248
Carstairs	Robt. Scott	134	0.2	1,376	30	883	392	2.399	492
Castor	N. McCarthy	157	16	456	T	1.113	?1 []	1.79.5	232
Cayley	L. Beaton	235	:	4,390	×	1,931	91	6,556	66
Champion	W. A. Carmichael	:	:	4	4	2	- 10	છ	σ.
Chiewell	Arthur Burnet	:	:	38		41	c3	62	ទា
Chinman	Andrew Watson	:	60	63	4	1.300		1,302	t~
Claresholm	C. W. James	165	12	451	2.5	103	316	719	355
Clive	Jno. T. Reynolds	:	:	423	:	1.242	15	1,665	15
Cochrane	A. R. McKay	50	132	1,128	- 22	. 089	- 06	1,008	297
Coronation	A. A. Towns	:	:	:	:	6.1 6.3	- 29	23	29
Coutts	Wm. T. Patton	:	16	328	:	4,678	131	5,006	147

Calculated from returns received up to December 31st, 1912.—Continued

2 1 12 12 12 12 12 12 12 12 12 12 12 12				EXPORTS	RTS		[X [8.00]	Local Shipment	Total	- F
P. J. Biddell	Shipping Point	Inspector	F.a.	st 	- We	t l		1		ì
P. J. Biddell		•	Cattle	Horses	Cattle	Horses	Cattle	Horses	Ca tte	Horses
P. J. Biddell	:		-	000	300	6.4	37.6	120	562	203
Vm. Urgunart. 492 70 69 362 4 864 Chas. Houcher 70 7 69 1,571 105 1,710 D. Davidson 70 7 69 7,485 130 1,710 D. Davidson 7 69 7,485 130 1,819 152 I. R. Graham 83 463 7 1,485 26 26 1,819 1,175 280 1,175 1,175 1,175 1,175 1,175 1,173 1,173 1,173 1,103 1,173 1,103 1,173 1,		P. J. Biddell.	N Ç	88	007	# 0 # 0	479	312	220	377
D. Das, Foundairent		_	409	0.7	067	,	362	4	854	4
H. B. Aktins 26 183 308 7 1,485 130 1,819 I. R. Graham 83 159 15 15 15 15 15 16 175 160 1 175 1 1 280 175 160 1	Czar	Davidson	0.0	. [~	69	: :	1,571	105	1,710	112
W. F. Wendt. 83 11 280 W. F. Wendt. 83 152 152 J. H. Pickering. 4 463 15 166 152 J. H. Pickering. 407 375 5 156 166 152 J. H. Pickering. 407 19 29 36 20 177 188 37 176 188 37 176 188 37 176 188 37 188 37 176 188 37 176 188 37 176 173 176 <t< td=""><td>Daysland</td><td>D. Davidson</td><td>. 92</td><td>183</td><td>308</td><td>2</td><td>1,485</td><td>130</td><td>1,819</td><td>320</td></t<>	Daysland	D. Davidson	. 92	183	308	2	1,485	130	1,819	320
W. F. Wendt 83 4 463 575 156 572 160 175 J. H. Pickering 407 375 5 156 572 160 175 Oliver Gibbon 407 375 393 29 1,176 375 383 36 1,176 375 383 36 1,175 37 <td>Diasbury</td> <td>_</td> <td>110</td> <td>:</td> <td>159</td> <td>:</td> <td>11</td> <td></td> <td>280</td> <td>:</td>	Diasbury	_	110	:	159	:	11		280	:
J. H. Pickering 4 463 375 156 572 160 1 Oliver Gibbon 407 375 393 20 1,175 38 61 698	Donalda	W F Wendt	 82 82	:	:	:	69		152	• (
F. Kuhnke	Education	J. H. Pickering.	4	463	:	ഹ	156	57.0	160	1,040
F. Kuhnke 19 18 38 37 Katchewan J. Graff 199 3 365 26 554 J. E. McElhone 859 1,096 1,489 8 4,387 442 6,735 Thos. Henderson 460 42 4 12 639 7 1,103 ake Wm. Salvage 460 42 4 12 639 7 1,103 ake Chas. F. Gibson 2 6 11 8 29 8 29 8 29 8 29 8 29 8 29 8 29 8 29 8 29 8 29 29 652 487 708 708 762 487 708 762 752 752 752 752 752 752 752 752 752 752 74 254 752 752 752 752 754 752 752 752 752	Fredring	Oliver Gibbon	407	:	375	:	393	02	6).T'I	20
Katchewan I. Graff. 199 9 290 3 698 61 698 67	Florintosh	F. Kuhnke	:	:	19	:	18	20 1	250	80.5
1. E. McElhone. 199 290 3 366 26 394 Thos. Henderson. 859 1,096 1,489 8 4,387 442 6,735 1103 Akre. Chas. F. Gibson. 24 23 20 9 8 29 Arthur Wood. 24 23 2 64 119 88 er Chas E. Fisk. 54 172 2 95 652 487 708 er A. E. Stewart 39 4 316 24 2,007 313 2,362 A. Loftus. 155 17 186 354 75 752 752 Vm. Dennis 155 17 186 4 89 159 Vm. Dennis 155 108 4 89 159 Vm. Marshall. 10 8 124 294 Tr. 10 8 124 308 Tr. 10 8 1319 1389	Fort Saskatchewan.	J. Graff		:	• •		698	19	869	100
ake. Wm. Salvage. 460 42 4,489 8 4,387 442 6,735 ake. Wm. Salvage. 260 42 4 12 689 7 1,103 ake. Chas. F. Gibson 24 23 20 95 64 119 88 29 Arthur Wood. 54 172 2 95 652 487 708 ake. F. Fisk. 54 172 2 95 652 487 708 ake. A. E. Stewart 39 4 316 24 2,007 313 2,362 ake. A. Loftus. 155 17 186 24 2,007 313 2,362 ake. The Carl Bennis 155 108 4 89 159 ake. The Carl Bennis 155 108 114 38 124 ake. The Carl Bennis 155 108 114 38 124 ake. The Carl Bennis 155 108 114 38 124 ake. The Carl Bennis 155 108 114 285 14 1,409 289 1,700 Jas. P. Kent. 50 144 285 14 1,409 289 1,700	Conchet	T E McElhone	199	ந	290	m	365	97	894	89
ake. Wm. Salvage. 460 42 4 12 639 7 1,103 Chas. F. Gibson 20 9 8 29 Arthur Wood. 24 23 2 6652 487 708 For Chas. F. Stewart 39 4 316 24 2,007 313 2,362 A. A. Loftus. 155 17 186 354 73 695 V.m. Dennis 155 108 89 159 Carl Beny. 20 2 44 224 D. H. Moore. 2 2 2 44 224 T. H. Caldwell. 10 8 114 38 124 J. H. Caldwell. 6 144 285 14 1,409 289 1,700 Jas. P. Kent. 6 144 285 14 1,409 289 1,700	Galoben	Thos. Henderson	859	1,096	1,489	∞ <u>;</u>	4,387	442	6,135	1,546
Chas. F. Gibson 24 23 20 9 8 29 W H. Taylor 24 23 2 64 119 88 Arthur Wood 54 172 2 95 652 487 708 A E. Fisk 54 172 2 95 652 487 708 A E. E. Fisk 54 172 2 95 652 487 708 A E. C. Fisk 5 4 316 24 2007 313 2,362 752 A A. Loftus 155 17 186 354 73 695 Wm. Dennis 155 108 4 89 159 Carl Beny 2 2 4 89 159 Carl Beny 2 2 4 89 154 D. H. Moore 2 2 2 4 89 154 J. H. Marshall 6 144 285 14 1499 289 1,700 Jas. P. Kent 7 1 1409 289	Grassy Lake	Wm. Salvage	460	42	7	15	623		1,103	. 61
W H. Taylor 24 23 20 9 8 29 Arthur Wood 54 172 2 95 652 487 708 Chas E. Fisk 54 172 2 95 652 487 708 A. E. Stewart 39 4 316 24 2,007 313 2,362 A. Loftus 155 17 186 354 73 695 Vm. Dennis 155 108 4 89 159 Carl Beny 2 222 4 89 159 Carl Beny 2 222 4 89 159 N. Marshall 6 144 285 14 1409 289 1,700 Jas. P. Kent 7 1 1 1319 1389 1,389	Greenshields		:	:	• •	:	:		: 6	:
Arthur Wood. 24 23 2 64 119 88 Chas E. Fisk. 54 172 2 95 652 487 708 A. E. Stewart 39 4 316 24 2,007 313 2,362 A. A. Loftus. 155 17 186 354 73 695 Vm. Dennis 155 108 4 89 159 D. H. Moore. 2 222 44 224 J. H. Caldwell. 6 144 285 14 1,409 289 1,709 Jas. P. Kent. 6 149 285 14 1319	Halbirk		:		50	•	G ;	× 9	52.0 62.0 63.0 63.0 63.0 63.0 63.0 63.0 63.0 63	χ ;
Chas E. Fisk. 54 172 2 95 652 487 708 A. E. Stewart 39 4 316 24 2,007 313 2,362 A. Loftus. 155 17 186 24 295 Vm. Dennis 155 17 186 354 73 695 Varl Beny. 2 2 4 89 159 Carl Beny. 2 22 4 294 D. H. Moore. 2 222 44 224 J. H. Caldwell. 7 7 14 285 14 1409 289 1,700 Jas. P. Kent. 6 144 285 14 1409 289 1,700	II ondicto	Arthur Wood.	57	233	:	27	19	119	× ×	144
A. E. Stewart A. F. Stewart A. Loftus A. Loftus A. Loftus Wm. Dennis Carl Beny Carl Beny D. H. Moore J. H. Caldwell A. W. Marshall Carl Beny D. H. Moore A. W. Marshall A. Loftus A	Hardiscy.	Chas H Fisk.	ば	172	23	95	652	487	208	197
Alfred Aspinal . 39 4 316 24 2,007 313 2,362	righ niver	A F Stewart	:	:	128	:	488	<u>ខា</u>	616	e1
A. Loftus	Holden	Alfred Aspinall	39	41	316	24	2,007	313	2,362	341
A. Lollus. A. Lollus. A. Lollus. A. A. Lollus. A. W. Dennis 155 17 186 489 159 159 159 17 186 186 187 188 189 189 189 189 189 189 189 189 189	Indistall.	Allied Sapiners:		;	:		752	େ ୀ	752	
a. W.H. Definits 155 108 4 89 159 Carl Beny. 2 44 224 44 224 D. H. Moore. 2 8 114 38 124 J. H Caldwell. 77 8 124 38 124 N. Marshall. 6 144 285 14 1409 289 1,700 De. Jas. P. Kent. 70 1319 1389	Innistree	M. Loudins.	15	1.7	186		354	73	695	06
Tild Benty. 2 222 44 224 24 224 114 Moore. 10 8 124 114 38 124 124 114 114 114 114 114 118 118 118 118 11	Irricana	wm. Dennis		108			4	88	159	197
D. H. Moore. 28 124 114 38 124 124 285 14 1,409 289 1,700 6 144 285 14 1,409 289 1,700 1,389		(arl Beny	6	-) - 1	•		999	44	924	44
7	: : : : : : : : : : : : : : : : : : : :	D. H. Moore.	- -	· ×		:	111	× × ×	101	16
		J. H. Caldwell.) I:	0	:	•	231		308	: 33
Jas. F. Ment.	Kitscoty	.W. Marshall.	- 4	114	. 2X	14	1.409	289	1.700	111
	Lacombe	Jas. P. Kent.	į	 	1	•	1 219	i	1 389	-

	Fred Pass					88	re.	.98	15
Leduc	Thos. Hull	+	∞	•	- : :	947	88	951	46
ge	C. W. Lowther.	31	131	19	206	489	698	539	1.206
er	Hiram Miller	21	- 	:	:	104	23	116	9
	W. S. Knight	:	:	:	*	16	19	16	23
	Benj. Matkin	:	21	181	:	342	9	523	57
Macked	R. G. Mathews	180	689	39	52	618	486	837	1,227
	R. D. Irland	43	r~	:	:	527	- 10	579	12
iat	J. H. G. Bray	1,210	1,623	1,059	13	2,845	1,354	5,114	2,989
	Alex Minard	:		:	:	191	34	191	34
	E. Huffman	•		:	•	:	10	:	10
	W. D. Cook		:		:	:	:	:	:
: : : : :	Nick Hittinger	:	:	:		638	82	638	82
	Frank L. Wellman	:	83	17	:	:	41	17	109
	J. H. C. Milne	40	:	:	:	505	2	545	t-
	Peter McElroy	 છ	34	158	30	29	240	193	304
	A. E. Bedford	:	:	135		82	16	217	16
ay	Evan Olstad	-	:	22	:	95	14	117	14
	A. W. Fleming	01	14	:	:	135	4	137	18
	Geo. C. S. Paterson	:	203	2	- 21	804	131	811	336
	Thos. McKercher	568	63	3,527	51	3,255	479	7,350	593
	J. M. Hart.	:	62	164	:	584	35	748	26
еек	Ed. McRae		128	866	. 22	215	157	1,233	247
Ponoka	A. Reid	233	13	267	- 98	1,606	217	2,106	272
	Jas. Carter	40	41	:	:	21	95	61	136
	Albert Labelle	:	:	- 7	:	:	:	73	:
	T. J. O'Brien	:	:	1,125	21	3,251	72	4,376	93
	F. L. Cottle	115	87	61	- 20	1,066	577	1,242	599
	Wm. Ross	:	:	154	-	151	. 2	305	~
	P. N. Kjosness	:	:	:	 ∞	215	:	215	∞
	Jno. Burn	2.2	41	က	4	471	156	551	201
	J. B. Robertson	:	:	:	12	13	104	13	116
	J. C. Blain	406	:	2,080	∞	1,352	152	3,838	160
Stony Plain	Thos. Davis	- :	:	:	:	14	-	14	_
	R. Wainwright	23	166	က	72	321	1,101	347	1,339
Strathmore	Oscar Moorehouse	91	10	925	15	1,045	319	2,061	344

STOCK STATISTICS FOR ALBERTA. Calculated from retuins received up to December 31st. 1912.—Continued	FOR ALBERTA.	Calculated	from	returns	received	up to De	cember	31st. 191	2.—Conti	panu
				EXP(EXPORTS		19 Land 1	I cool Chimmonte	Total	
Shipping Point	Inspector		East	st	West	st	LOCAL DI	mbindin	7	100
			Cattle	Horses	Horses Cattle Horses	Horses	Cattle	Cattle Horses	Cattle	Horses
Strome	W. E. Phipps		281	15	-	11	525	62	813	105
Taber	Neil Neilson		:	92	11	11	9	88	17	175
Tees	F. E. Allison		42	:	262	:	236	6	540	91
Tofield	R. A. Mackenzie		:	:	431	:	089	54	1,111	54
Vegreville	A. A. Harkness		15	40	:	:	3,487	42	3,502	119
Vermilion	H. Woods		18	22	180	67	1.672	108	1,870	132
Wainwright	C. F. Gibson	- :	35	က	21	:	1,770	6	1,826	12
Walsth	Lachlan Sinclair.		727	172	1,654	:	523	246	2,904	
	Total		12,058	8,002	44,486	1,708	78,708	19,822	135,252	29,532

II.—CROPS.

WEATHER CONDITIONS AND STATISTICS.

The following tables regarding the weather conditions prevailing during the year have been obtained through the Dominion Meterological Office at Toronto and is the work largely of a corps of voluntary observers throughout the Province:

Maximum and Minimum Temperatures for Meterological Stations in Alberta for 1912.

Jan. Feb. Mar. April May	Feb. Mar. April	Mar. April	April		May	14	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Maximum 42.0 46.0 54.0 75.0 Minimum49 U -25.0 -20.0 -15.0	46.0 54.0 75.0 -25.0 -25.0 -15.0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	75.0			84.0 26.0	85 0 32.0	78 0 34.0	80.0 33.0	73.6	71.C 9.0	55.0	55.0
Maximum 39.0 45.0 55.0 65.0 Minimum47.0 -34.0 21.0	45.0 55.0 -34.0 -28.0	55.0 -28.0	-	65.0 21.0		87.0 22.0	93.0 25.0	83.0 31.0	81.0 29.0	$\frac{81.0}{18.0}$	75.0 8.0	51.0	$\frac{52.0}{-30.0}$
Maximum 57.2 50.9 Minimum -15.3 -21.0	. 67.2 50.9 15.3 -21.0	50.9		::		::	::	::	: :	: :	: :	: :	: :
Maximum 45.0 38.8 51.3 59.1	38.8 51.3 -20.4	51.3		59.1 17.0		76.9	85.7 30.2	82.9 33.8	79.1 32.0	73.1 23.4	58.0	::	37.6
Maximum 48.0 49.0 60.0 65.0 Minimum30.0 -7.0 -16.0 14.0	$\begin{array}{c cccc} 49.0 & 60.0 \\ -7.0 & -16.0 \end{array}$	60.0 -16.0		65.0 14.0		82.0 28.0	90.0 29.0	79.0 33.0	82.0 30.0	72.0	70.0	::	51.0
Maximum 37.0 38.0 51.0 65.0 Minimum48.0 -29.0 29.0 24.0	$\begin{array}{ccc} 38.0 & 51.0 \\ -29.0 & -29.0 \end{array}$	$\frac{51.0}{-29.0}$		65.0 24.0		84.0 25.0	90.0	81.0 32.0	78.0	75.0	65.0	53.0 10.0	$\frac{50.0}{-16.0}$
Maximum 50.0 54.0 58.0 66.0	54.0 58.0 -40.0 -8.0	58.0		66.0 20.0		80.0 28.0	88.0 30.0	80.0 32.0	80.0 32.0	72.0 26.0	74.0 15.0	56.0	56.0
Minimum 38.0 37.0 51.0 69.5 Minimum40.0 -23.0 -24.0 9.4	$\begin{array}{ccc} 37.0 & 51.0 \\ -23.0 & -24.0 \end{array}$	$\frac{51.0}{-24.0}$		69.5 9.4		81.0 25.2	91.0	78.0	75.0 31.7	71.0	70.0	50.5 -12.0	48.0
Maximum 48.0 50.0 58.0 69.0 Minimum -46.0 -20.0 -17.0 23.0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	58.0 -17.0		69.0 23.0		86.0 29.0	89.0 32.5	82.0 35.0	81.0 35.0	78.0 22.0	74.0 15.0	54.0	44.7
Maximum 43.0 49.0 57.0 69.0	$\begin{array}{c c} 49.0 & 57.0 \\ -14.0 & -16.0 \end{array}$	57.0 -16.0		69.0 26.0		80.0 30.0	92.0 32.0	78.0 36.0	77.5 31.0	66.5 22.0	66.0	45.0 -7.0	47.0
Maximum 53.0 51.0 58.0 64.0	$\begin{array}{c c} 51.0 & 58.0 \\ -14.0 & -27.0 \end{array}$	58.0		64.0 11.0		80.0 21.0	88.0 21.0	77.0 29.0	80.0 24.0	75.0	70.0 8.0	58.0	59.0

Maximum and Mininum Temperatures for Meterological Stations in Alberta for 1912,

STATIONS	,	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
High Kiver.	Maximum	47.0	47.0	62.0	65.0		91.0 25.0	::		$\begin{array}{c} 72.0 \\ 20.0 \end{array}$::		::
Hillsdown	Minimum	45.0	44.3	$\frac{56.0}{-18.0}$	68.0 18.0	82.0 30.0	30.0	79.0 32.6	83.0 31.0	71.0	70.0	56.5	$\frac{53.0}{-10.0}$
Lacombe Ex. Farm	Maximum	42.4	46.8 -23.5	$\frac{54.8}{-20.0}$	$62.9 \\ 17.9$	82.7 23.5	89.6 25.5	78.5 30.5	84.5 30.1	75.8 20.8	70.6	58.3 2.9	58.6 -10.6
Lethbridge	Maximum	50.9	50.2 -18.5	63.9	75.0 18.8	89.0 27.0	98.0	: :	::	: :	: :	: :	: :
Lethbridge Ex. Faim	Maximum	48.6	49.2	63.3	71.0	82.8 23.6	94.8 32.0	86.6 36.0	88.7 34.1	: :	72.2 14.2	55.7 10.1	48.2 -0.9
Loveland	Maximum	39.0	39.0	52.0 -28.0	69.0	84.0 26.0	91.0 29.0	78.0	77.0 32.0	19.0	17.0	48.0	48.0
Lunnford	Maximum	43.0 -56.6	50.3	57.0	66.4 15.0	86.2 22.8	85.8 27.0	81.0 28.0	81.0 26.4	79.0 18.0	70.0	55.2 -16.0	54.0 -28.8
Macleod Police	Maximum	48.0	.10	62.0 -16.0	69.0	82.0 26.0	99.0 30.0	39.0	39.0	74.5 26.0	74.0	57.5 12.0	50.0
Medicine Hat	Maximum	43.0	47.0	61.0	74.0 25.0	88.0 27.0	102.0 34.0	94.0 38.0	93.0	78.0	74 0 20.0	: :	52.0 4.0
Pakan	Maximum	40.5 52.0	43.7	57.0 -31.0	63.9 13.9	85.7 25.0	90.0 25.1	31.8	31.9	74.0	65.0	48.5	: :
Parkignd	Maximum	43.0	$\frac{45.0}{-19.0}$	62.0 -20.0	72.0	72.0	89.0 26.0	: :	::	::	64.0	::	: :

DEPARTMENT OF AGRICULTURE

Maximum and Minimum Temperatures for Meterological Stations in Alberta for 1912

STATIONS		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Playle Creek	Maximum	46.6	4.35	54.3 -14.0	57.7 10.6	:::	: ::	::			: :	: :	: :
Sion	Maximum	45.0	50.0	54.0 -16.0	66.0 20.0	88.0 22.0	94.0 24.0	84.0 30.0	82.0 29.0	75.0	68.0	0.0	: :
Sundial	Maximum	44.0	46.0	62.0	71.0	96.5	99.5	88.5 40.0	90.5 35.0	74.0 21.0	74.0	57.0	56.0
Waitefield	Maximum	37.0 -49.0	40.5	51.0	65.0	86.2 26.0	93.0 30.9	78.4	79.0 30.5	75.2 16.6	69.8	5.0	47.0 -24.0
Pembina	Minimum	: :	$84.5 \\ -27.0$	56.0 -39.0	0.0	: :	88.0	30.0	85.0 35.0	: :	87.0	58.0 -22.0	: :
Dunvegan	Maximum	: :	$\frac{44.0}{-30.5}$::	: :	: :	: :	: :	: :	::	: :	: :	<u>:</u> :
Lesser Slave Lake	Maximum	: :	-30.0	: :	: :	: :	: :	::	: :	::	::	::	: :
Peace River Crossing	Maximum	33.0 -53.0	: :	57.0	64.0 17.0	89.0 26.0	89.0 29.0	88.0 34.0	88.0 29.0	: :	68.0	: :	: :
Pincher Creek	Maximum	48.0	: :	::	: :	: :	: :	74.0	84.0 36.0	73.0	73.0	57.0	45.0 3.0
Fort Vermilion (1)	Maximum	26.9 -58.0	35.0 -48.0	51.2	$60.5 \\ 11.0$	$103.0 \\ 22.0$	98.0 29.0	89.0 28.0	98.0	78.5	9.0	41.0	46.0 -43.5
Fort Vermilion (2)	Maximum Minimum	21.8	26.0	54.5	9.9	92.5	98.2 32.1	86.5 25.0	$101.0 \\ 28.0$	81.0	69.0	44.0	47.0 -45.0

Maximum and Minimum Temperatures for Meterological Stations in Alberta for 1912.

STATIONS		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Gleichen	Maximum		::	58.0	60.0 17.0	80.5 28.0	91.0	81.0 38.0	83.0 29.0	72.0	72.0	55.0	49.0
Brooks	$\left\{ egin{align*}{ll} Maximum & \dots \\ Minimum & \dots \end{array} \right.$: :		: :	78.0	96.0	: :	34.0	89.0	76.0 12.0	72.0	: :	: :
Oyen	{ Maximum	: :	: :	$\frac{70.1}{18.2}$	$\begin{array}{c} 86.0 \\ 21.0 \end{array}$	84.5 23.1	: :	83.7 34.6	83.0 32.0	: :	: :	: :	: :
Delia	$\{$ Maximum $\}$: :	34.8	$\frac{52.0}{-17.0}$	63.5 17.5	79.6	94.2	78.2 35.0	79.1	: :	68.0	50.7	46.7
Wetaskiwin	Maximum	::	$\frac{50.0}{-21.0}$	67.0	: :	90.0	89.0 32.0	82.0 40.0	83.0	: :	: :	: :	: :
Nanton	(Maximum	: :	: :	: :	: :	: :	: :	81.0 35.0	88.0 33.0	79.0	: :	48.0	$\frac{41.0}{2.0}$
Berry Creek	Maximum	: :	: :	50.0	: :	86.0 20.0	96.0 22.0	: :	: :	: :	: :	: :	: :
Campsie	Maximum	: :		: :	: :	: :	::	: :	: :	78.5	69.1 5.0	55.9	54.0 -27.0
Redlow	Maximum	: :	: :	: :	: :	::	: :	::	::	: :	69.0	50.0	$\frac{50.0}{-18.0}$
Moose	Maximum	: :	: :	: :	: :	: :	: :	75.5	75.4 25.9	72.5	58.9 9.8	30.0	42.5 -26.0 ·

DEPARTMENT OF AGRICULTURE

MONTHLY PRECIPITATION FOR 1912.

STATIONS	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Alix	40	68	5	00	6	00	, L	0	1				1
Athabasca Landing	65	26				2.00	0.00	90.00	1.58	1.00	2.10	۲	20.15
Banff	.94	20	33		90	7 T C	60.7	00.0	7.0	4.	. 22	.51	12.38
Bardo	6	2	, H) H	30.0	00.0	9.04	1.03	1.81	:	.37	*19.07
Perry Creek	3	00.	eT.	70.	1.35	3.09	4.12	2.58	89.	.61	.40	00.	13.85
Boyer Mines	:	:	:	:	3.46	2.14	:	:	:	:	:		. 5.60
Diemonk	: 1	:	:	:	:	:	:	:	-		rc	: 5	4 1.9
Ditter	.56	00.	۲	3.00	. 29	3.01	3.02	4.47	10	. rc			17.51
Bittern Lake	86.	.20	.27	.50	2.62	2.68	4.39	3 8 2	1 96	200	9 rg	-1 12	10.01
Blairmore	:	.11	33	:)) !	•		# 0	•	9	10.01
Brooks (1)	.31		: :	1.74	9. 37	:			1:	: c	:	:	. 44
Brooks (2)		20	12	1 35	02.6	1 04		, A	0 7	9	: 0	: '	80.8
Bruderheim	08	25	32	1 33	· : :	T . C .	7.00		1.04	T.04	12.	.0.	*11.36
Caldwell	2.20	1 10	1 - 2	70.7	1 29			: 6	:0		:		69.7
Calgary	0	000	70	- N	1.07	0.00	9.30	1.02	1.90	2.86	:	.42	*18.02
Campsie	9	0 0	÷ 6	60.4	1.42	4.31	5.20	2.75	2.30	1.09	:	H	*20.14
Clarecholm	88.	c 0.	. 73	.78	1.60	1.88	:	2.64	.35	.92	.73	.14	*10.70
Colomon	:	:	:	:	:	:	:	:	:	77.	1.09	. 21	* 2.07
Confinition	:	:	:	:	:	:	:	:	:	06	1.45	1 20	× ×
Comjuring Creek	:	:	:	3.60	3.21	:	5.30	80.9	:				*1× -00
Description	• (:	:	:	:	:	:	:	•	1.00	1.68	9	* 3.98
Daysland	.73	.30	00.	.51	2.16	.75	80.6	5.26	1.06	.32	5.5	-	20.87
Diagram	. 57	. 07	.02	.45	.84	:	5.15	3.41	2.25	.72	rc rc	0	*14 93
Description	01.	.10	.40	1.62	2.67	2.68	5.46	3.95	13.23	1.91	170	0.0	20.22
Duringen	1.00	[. 20	.84	2.48	2.63	4.07	2.59	1 19	1.00	24.	000	16.4
Dour vegation.	:	.37	:	:	:	:	:	:	:				* 37
ECKVIIIe.	:	.02	:	:	:	:	:						
Edinonton	1.15	.16	.40	1.57	2.35	3.03	4.76	4.41	1.12	7.3	4.0	0	31.06
Endiang.	.30	.15	.05	92.	2.44	3.26	4.07	5.08	88.	84.	30	E	17.77
Fort vermillon (1)	.20	.32	60.	. 73	re [-	.17	.53	1.80	3.43	09	1.12	. C.	8
Fort Vermillon (2)	51.	09.	. 27	.47	:	. 25	1.37	3.32	06.	. 70	. 55	1.60	*10.18
rive Lakes	1.06	.16	.58	88.	1.78	2.32	4.36	3.81	.52	8.	.21	1.	16.67
dielenen	:	:	:	1.63	1.21	1.23	2.83	то 00	35	2.50		!	*10.34

Grassy Lake.	00	10	30	30	9	9	6. T.	9 67	60				ر د د
Halkirk	46	60	E	69.0	07.6	6		21.0	00.	: 6	::		00.00
Harmattan	9.5	2.5	4 4	20.	9.40	9.0	00.1	00.6	97.7	77.	4.0.		21.63
High Dinon			-	96.		000	06.	9.09	# # C	F.0.3	67.		22.02
ring a tely circumstation	31	: 1	•	00.7	• [3.00	•	:	2.35	:	:		06.8
HIIIsaown	og.	.35	00.	1.23	7.8.7	3.30	6.33	2.66	22.	1.18	:		*15.30
Jumping Pond	:	:	.40	2.43	1.95	4.15	9.49	2.97	2.47	2.05	1.47		*27.58
Lacombe Ex. Farm	92.	.16	.13	1.29	2.93	3.00	5.29	4.44	1.27	1.56	93		21.83
Lethbridge	86.	.33	.42	.45	69	1.91			2.35	1 03	2.0		* 0
Lethbridge Ex. Farm	69	.40	44	. 20	99	1 73	27.2	1 41	9.61	1.07	000		12 91
Linoham	6	64		20	0.1						9.0		10.01
Tourse Class Take	77.	-	T .00	02.	1.00	4.15	8.01	2.30	.43	2.02	1.22		23.68
Lesser Stave Lake	:	07.	:	:	:	:	:	:	:	:	:		.20
La Pearl	:	:	.24	:	1.32	1.01	4.31	3.31	1.37	:	:		*11.56
:	:	:	:	:	:	-:			•				*
	1.55		E-		9.61	2 56	49	200	1 21	- LC			· · · · · · · · · · · · · · · · · · ·
Lunnford	2.01	F	08	73	62.1	00.6	9.00		100	90.1	-		# F - O -
(00	20	6				1 7	200	9 6	7	-	9 6		10.1
•	21	4.1	oT.	70.	10.	- 60.1	3.32	2.01	7.07	00.	0.2.		12.71
•	1.4b	.50	08.	. 27	89.	3.22	3.35	68.	2.52	1.51	1.50		17.29
•	1.25	.47	.91	1.09	1.30	2.81	7.73	2.00	2.12	2.65	1.02		23.86
	:	:	:	:	:	:	:		:				
•	.73	09	48	1.21	1.10	2 95	4 44	66	 	88	80.6		18 97
Medicine Hat.	02.	×	30	46	1 63	61-	86	, rc	200				01.0
	-	 !)		C 70	000	 		: 6		
17.1 C	:	:	:	:	:	:	66.7	1.00	68.	: 1	.30		. 5.60
:	:	:	:	•	•	:	:	:	:	.50	1.20		* 2.00
(1)	:	:	:	:	.82	3.88	6.72	1.06	3.32	1.90	.30		*18.00
(2)	:	:	:	:	:	:	3.36	1.18	3.91	:	.80		* 9.60
Okotoks	H	.12	.05	1.64	1.61	3.68	6.63	1.45	2.16	H	.20	_	17.54
Oyen	:	:	:	12.	1.85	-:	2.91	2.45	:		:		* 7.72
:	.50	.37	06.	. 91	1.10	3.38	3.88	3.48	. 69	. 40	36		*15.77
Parkland	. 40	.20	.20	.94	.28	2.43	:		:	1.05			00.9 *
Peace River Crossing	08.	:	:	:	.80	.71	1.24	1.24		5.0			* 38
Pembina	:	:	:	:	;	1.67	8.00	1.24		4.	35		*11.71
Pekisko	1.07	22.	1.12	2.13	1.30	4.88	5.43	1.07	2.59	2.62	2.40		25.68
Creek	17.	:	:	:	:	:	4.39	1.17	1.34	1.50	18		* 9.40
Ponoka	98.	.75	.45	:	.15	2.93	5.12	2.83	.93	:		:	*14.01
Playle Creek	97	- 40	.65	1.35	:			:	:	:			* 3.37
										:	:		,

MONTHLY PRECIPITATION FOR 1912.

Dec.					92.8 *		_		.55 * 2.48	
Nov. D	:	:	.20	89.	.20	:	.49		.36	_
Oct.	:	14	.55	86.	.75	:	1.02	:	.57	:
Sept.		.11	1.80	:	1.69	:	1.39	:	1.00	:
Aug.	:	2.80	.49	:	:	:	3.14	3.10	:	:
July	5.59	2.13	1.05	4.20	3.03	:	5.04	5.16	:	:
June	3.25	96.	2.24	3.13	1.54	:	2.80	4.25	:	:
May	1.13	.59	1.33	2.21	1.14	:	.6·	:	:	:
April	.95	1.37	.79	1.56	.41	:	.52	:	:	:
Mar.			30	1.10	:	:	.30			:
Feb.		0.20		42		:	41	! :		:
Jan.		64	. 04	1.42	:	:	77			
STATIONS	Priddis	Badlow	Seven Persons	Sion		Three Hills Creek			Writing on Stone	

* Reports cover only part of the year.

ANNUAL PRECIPITATION FROM 1899 TO 1912, INCLUSIVE.

Stations.	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Aliv							* 2 .87	0.	*13.91	14.15	14.39	*10.29	22.34	20.15
Athabasoa Landing	:	:	:	:			*11.69	* 0.45		:	* 6.29	*16.49	17.03	12.38
Banff.	26.34	23.29	19.27	30.59	24.82	14.80	16.00	14.88	23.54	21.05	21.56	16.32	19.17	*19.07
Bantry	:	:	:	:	:	:	:	:	: 1		13.74	* 0.11	10 01	. 6
Bardo	:	-	:	:	:	:	:	:	*15.59	•18.05	11.65	*10.43	۶	10.80
Beaver Mines	:	:	:	:	:	:	:	:	:	:	:	:	:	1.12 # 15.00
Berry Creek	:	:	:	:	:	:	:	:	: 0	*17.		*11.68	*30 18	17.21
Bismark	:	:	:	:	: : :	:	:	:	18.14	10.04	*11 59	*13 80	90.10	18.81
Bittern Lake	:	:	:	:	:	:	:	:	*11.19	16.61		* 6.54	*90.59	* 44
Blairmore	:	:	:	:	:	:	:	:	:	:	10.96	* 90	17.60	80.8
Brooks (1)	:	:	:	:	:	:	:	:	:	:		2		*11.36
Brooks (2)	:	:	:	:	:	:	: 0	:	10 01*	*19 06	*11 03	*13.56	*18.68	* 2.69
Bruderheim	:	:	:	:	:	:	*13.23	17 63		24.97	16.20			
Bon Accord	:	:		:	:	:	0#.11.	71.00			l			*18.02
Caldwell		: 1	: t	: 6		77 66	14 84	16 94	14 96	18.25	16.03	12.03	19.99	*20.14
Calgary	14.94	61.92	16.51	16.22	+	1	10.11	1			:	*14.02		*10.70
Campsie	:	:	:	:	:	:				:	:	*13.20		18.19
Cardston	:	:	:	:	:			: :		:	:	:	:	* 2.07
Claresnolm	:	:	:	:					:	:	:	:	:	* 3.85
	:	:	:	:				:	18.57	*18.59	*13.63	* 4.05	* 4.02	*18.19
Conjuring Creek	:			· :		:	:	:	:	:	:	* 2.10	:	: 0
Courte	: :			:	:	:	:	:	:			*10.91		90.28
Davsland	:	:	:	:	:	:	:	:	:	14.09	00.0	10.01	*14 78	*14 93
Delia	:	:		- : '	.,	-	01.10	0.00	*97 11	*91.80	66 06	*17.48		22.02
Didsbury	:	:	23.07	25.13	21.80	14.20	71.17	9.0	19.50	18.60	*15.99	* 5.10	26	16.45
Dorenlee	:	:	:	:	:	:	:	14.49	* 8.66	*11.29	* 8.33	*7.45		* .37
Dunvegan	:	:	:	:	:			:	:	*24.33	* 9.44	* 1.88	* 9.84	* .02
Eckville	20.89	27 82	27.53	20.66	21.06	19.86	15.36	*13.48	16.62	1.7.89	14.30	14.43		20.18
Elkwater	:	:	:	:	:	:	:	:	:	-				

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		:	:	:	:	:	:	: 0		: 1			
Fort Vermillon (1)		:	:	:	:	:	:	8.23	\$ 5.19	3.5%	4 9.55	* 1.69	.11.57
Vermilion (2)		:	:	:	:	:	:	:	:		:	:	*13.29
McMurray	:	:	:	:		:	:	:	:	:	:	00.0	:
For February 1					-				-				*18.55
	:	:	:	:		:	:	:	:	:	:	. 0	0 V 6 L*
CIII Eage	:	:		:		:	:	:	:	:	:	8.98	19.40
Gleichen	:	:	:	:		*10.22	11.19	16.61	*11.39	*15.89	19.14	* 9.41	*13.63
Grassy Lake	:	:	:	:	:	:	:	:	* 4.94	* 8.22	* 9.20	* 5.15	11.60
Haltirk									-	17.55	11 47	*10 04	20.69
	:	:	:	:	:	:	:	:	:	200	1 1	10.01	
Harmattan	:	:	:	:		: : :	:	:	: ;	T.14.10	11.)	E0.21	13.10
High River	:	:	:	:	:	:	:	:	16.05	15.58	9.31	9.33	17.03
Hillsdown	:	:	:	:	:	:	16.26	16.06	17.51	*18.64	18.16	21.25	23.43
							-			*	200	00.0	
	:	:						•	11 56	*	*10 70	*	•
Josephourg	:	:	:	:	:	:	:	:	00.11	40.6	10.10	00.0	. (
Jumping Pond	:	:	:	:	:		:	:	16.09	20.14	16.88	12.80	*10.13
nbe		:	:	:			15.04	:	:	*17.66	15.34	13.04	* 9.87
Loombo Ev Form									*18.52	*15 33	2	13 28	21.44
LINE LAN. FRANK.	:	:				:	:	:	•				
La Fearl	: : :	:	:	:	:	:::	:	:		:		• •	• • • • • • • • • • • • • • • • • • • •
Lawrence	:	:	:	:			:	:	12.19	*14.65	11.69	99.6	15.58
athhridge				28.13	14.82	11.40	13.78	*22.48	15.50	16.16	11.69	* 5.66	22.16
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	:									*12 97	10 36	* 7 41	91 10
Lethoriage La. Farm	:	:	:		:		:	:	:	76.5	20.	77.	
Lesser Slave Lake	:	:	:	:	:	:	:	:	:	:	:	:	
Lineham		:	:	:	:	:	:		:	:	:		13.46
Langdon					:				:		10.98	* 8.41	
	:	· · ·		•								* 7 45	04 70
Local Sloy	:	:	:	:	: :	:	:		:	:	:	CF. 104	%1 1 1 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Loveland	:	:	:	:	:	: : :	:	:	:		:	30.10	14 55
Lunnford				:	:	:	:	:	:	:	:	*14.37	19.63
													23.73
100 HUOM	10 77		19 91	10 48	7.3	2 34	11 63	90.89	119 40	*18 11	*16.05	*× 57	94 34
Macieou	10.11	10.00		01.01		3	2	1	0 7		000		
Macleod (Police)	:	:	:	:	:	:	:	:	13.48	TT. 43	14.88	18.16	20.02
Manyberries	:		:	:	:	:	:	:	•			:	08. *
Maxoroft										:			22.36
		. 00	0000	12 60	000	0 40	000	11 69	* 6 96	23 6 *	08 6	* 6 45	*16 04
Medicine Hat	07.77	60.47	70.00	7.00	00.0		3	70.1	3	:		2	7 7
Minda	:	:	:	:	:	:	:	:	:	:	:	:) T :
ď	:		:	:	:	:	:	:	:	:	:		:
M	_			_									
Mountain view	:	:	:	:	:	:	:	:		:			
,													

ANNUAL PRECIPITATION FROM 1899 TO 1912, INCLUSIVE.

Stations.	1899	1900	1901	1903	1903	1904	1995	1906	1907	1908	1909	1910	1911	
			-		:							1		*
Nanton (2)		:	:			:	:	:	60 61.	10.01	13.52	*10.86	15.41	17.54
Okotoks		:		:	:	:	•		5	10	}		:	*
Oyen	:	:		:	:	:	:	. 60	*10.00	*57.81	13 01	*23.06	14.56	#
Pakan	:		:	:	:	:::::::::::::::::::::::::::::::::::::::	:		70.01					<i>"</i> .
Parkland	:	:::::::::::::::::::::::::::::::::::::::	:	:		:	•		: 6	*10.00	*	*10 98	*17.17	×
Peace River Crossing	:	:	:		•	:	:	:		19.99	4.02	* 6.89	*18.52	*11.71
Pembina	:	:	:	:		:	:	:	:	_			*24.02	
isko	:	:	:		:	:			:		95 91	*10.82	*19.26	
Pincher Creek	:	:	:		:	:	14 92	60.17.		17.87	*10.04	*14.61	20.10	*14.01
Ponoka	:	:	:	:	:	•	:	:	00.61				*13.83	*
Playle Creek	:	:	:	:	::::	:	:	:	:	:	:		:	*10.92
Priddis	:	:	:	:	:	:	:	:	:	:			*17.75	_
Red Deer	:	:		:		:	:	:	:				:	*
Redlow	:	:	:			:	:	:	:	:			*17.53	
Seven Persons	:	:	:	:	:	:	:	:	17 11	17.98	20.69	*19.79	24.36	*
Sion	:	::	:	:	:	:	:	:				7.34	*10.94	
Spirit River	:	:	•	:	:	:		:					12.37	#
dial	:	: :	:	:			10.00	. c	e 13 77	14.29	15.74	* 8.49	*17.13	
Three Hills Creek	:		:	:	18.53	11.44	70.01				:	:	* 3.04	
Tilly	:	:	:	:	:	:	:	9.4.57	17 07	22.87	17.83	13.83	19.00	17.03
Waitfield	:	:	:	:	: 6	:07	12.18	16.64	17.97	17.97	13.94	*17.40	36.50	
Wetaskiwin	:	:	:	:	70.07	10.10	01.01		20.36	19.97	* 7.67	* 0.00	12.00	
Wabamun	:	:	:		:	:	:				:	:	:	×
Waterlow Mills	:	:	: : :	:	:	:	:				:	_ :	:	*
Writing on Stone	:	:	:	:	: '									

HOURS OF SUNSHINE RECORDED, 1912.

Dunvegan		Mar. April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	181.7	162.7	306.4	360.6	260.6 170.7	164.1	164.1 142.4	59.8	*	9.3	
Edmonton	244.1	178.2	251.8 312.5 192.4 200.8	312.5	192.4	200.8	190.9	150.2	71.9	58.3	2044.2
Fort Vermilion 51.4 88.3 19	197.3	170.6	288.8	288.5	236.7	194.5	238.7	104.5	53.9	62.9	1687.3
Lacombe 103.5 121.0 20	203.0	195.0	245.9	300.7	245.9 300.7 177.1	190.1	190.1 175.2 149.4	149.4	88.5	73.2	2022.6
Lethbridge 111.7 139.7 23	230.9	209.0	280.4	322.7	250.3	239.9	169.3	172.9	129 2	102.3	2358.3
Medicine Hat		190.7 218.4 250.5 330.2	250.5	330.2	265.5	206.4	152.9	152.9 146.6	*	65.0	:

*No records furnished.

Crop Statistics

The seeding season of 1912 was a disappointing one in many ways. The month of February was so mild and bright, that the snow went early and spring was expected right away. In fact some seed was sown quite early. This beautiful weather was followed by a comparatively cold March and April, which, while not conductive to early germination, was favourable to both man and horse in working the land. Owing to the long stretch of fine weather the land was well dried out and worked beautifully; in fact, not in years was the seed bed in better tilth.

This long open season, however, gave opportunity for great loss of moisture and when followed by drouthy conditions told heavily on all crops, but especially the later sown ones. The rainy season was somewhat delayed, in fact in certain districts and on some soils, considerable damage was done. A cool summer following, retarded growth until harvest was somewhat late and some fields were damaged by frost.

Harvesting and threshing conditions were fairly favourable, with the result that practically the most of the grain was threshed before winter set in. The supply of help to garner the erop was, generally speaking, satisfactory. The season was comparatively free from severe hail storms, so that a minimum loss was sustained from that source.

Spring Wheat. The increase in aereage, 26.45 per cent, is not much above the average increase expected from year to year on aecount of new land being brought under cultivation. That it is not larger may be partly accounted for by the drouthy conditions of the early breaking season interfering with the usual amount of breaking being done, and by the fact that on account of the late wet fall of the previous year little fall ploughing was done. The area seeded to spring wheat compares favourably with that of other years. Although the total quantity of grain is greater, the yield per aere is lower than last year and under the ten year average.

Winter Wheat. The early open spring followed by drouthy eonditions was hard on winter wheat. There was a good deal of winter killing, especially in the central portion of the province, and later many fields lost out through lack of sufficient moisture. The greatest damage was, however, done by the open fine weather of February. The aereage finally harvested is below that of previous years and the yield, while good, is below the ten year average.

Oats. The lack of prepared land for early seeding is shown in the large increase in the area devoted to oats, barley and flax. Oats show an increase in acreage of over 46 per cent, while the yield is considerably above the ten year average. Being sown later and thus not so much affected by the drouth the returns have been handsome.

Barley. The acreage sown to barley is more than doubled and indicates the trend that is taking place toward mixed farming.

In eonelusion it may be noted that the crops of 1912 were comparatively free from weeds. This was no doubt owing to the excessive moisture of the previous fall causing most of the weed seeds to sprout and thus be destroyed by frost. This was particularly fortunate in view of the drouthy spring, as otherwise the weeds would have made great growth while the crop was halting.

The following tables give the acreage and yield of the various grains by constituencies for the Province, with the exception of the northern districts:

CROP STATISTICS

SPRING WHEAT

						: -= ==
Χo	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
1	Cardston .	1908 1909 1910 1911 1912	234,811 182,570 194,513 424,385 665,687	9,371 8,404 11,044 21,570 38,974	24.73 21.72 17.61 19.67 17.08	20.16
2	Macleod	1908 1909 1910 1911 1912	196,248 344,877 56,778 375,440 317,705	9,127 14,500 10,874 18,483 20,523	20.50 23.78 5.22 20.32 15.48	17.06
3	Lethbridge	1908 1909 1910 1911 1912	357,432 686,885 200,368 2,767,831 2,891,082	17,271 35,270 29,603 133,686 173,016	20.69 19.75 6.77 20.70 16.71	16.92
4	Pincher Creek .	1908 1909 1910 1911 1912	10,916 28,092 4,644 50,198 37,031	486 1,287 559 2,467 1,926	$\begin{array}{c} 22.46 \\ 21.82 \\ 8.31 \\ 20.35 \\ 19.74 \end{array}$	18-53
5	 Claresholm . 	1908 1909 1910 1911 1912	$\substack{1,081,293\\1,497,621\\423,460\\2,721,764\\2,045,772}$	57,209 87,780 58,134 124,761 111,425	18.90 17.06 7.28 21.82 18.36	16.68
6	Medicine Hat	1908 1909 - 1910 - 1911 - 1912	81,370 317,951 84,927 708,502 1,080,312	10,581 13,945 12,098 38,874 69,339	7.68 22.80 7.02 18.23 15.58	14.26
7	Nanton	1908 1909 1910 1911 1912	$\begin{array}{c} 273,127 \\ 407,411 \\ 109,392 \\ 1,038,836 \\ 1,038,509 \end{array}$	14,518 21,267 22,444 41,341 47,968	$ \begin{array}{c} 18.81 \\ 19.15 \\ 4.87 \\ 25.39 \\ 21.65 \end{array} $	17.97
8	High River	1908 - 1909 - 1910 - 1911 - 1912	85,256 139,885 60,221 502,921 453,489	4,252 6,559 10,013 18,536 18,982	20.05 21.33 6.01 27.13 24.41	19.78
9	Rocky Mountain	1908 1909 1910 1911 1912				
10	Okotoks	1908 1909 1910 1911 1912	32,954 81,356 60,278 250,303 257,570	1,363 3,990 4,961 9,005 10,225	24.17 20.37 12.15 27.79 25.19	21.93

ANNUAL REPORT, 1912

Spring Wheat—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
		1908	2,287	141	16.21	
		1909	8,889	404	21.50	14.01
l1	Cochrane	1910	3,570	574	6.22	14.91
	; ,	$\frac{1911}{1912}$	13,145 $10,869$	$\frac{902}{671}$	$\begin{array}{c} 14.56 \\ 16.09 \end{array}$	
	į	1908	37,085	1,447	25.62	
		1909	159,389	6,670	23.89	
12	Gleichen	1910	207,082	21,804	9.50	19.03
-)	1911	906,770	52,855	17.15	1
	1 .	1912	862,715	45,334	19.03	
		1908	21,878	890	24.58	1
	1	1909	72,778	$\frac{2,966}{8,598}$	24.53	10.79
3	Didsbury	1910	88,403	14,903	$\begin{array}{c} 10.28 \\ 17.33 \end{array}$	19.72
	i	$\frac{1911}{1912}$	258,287 = 374,656 = 1	17,123	$\frac{11.33}{21.88}$	
		1908	12,635	665	19.00	1
		1909	51,780	1,926	26.88	1
14	Olds	1910	46,544	4,114	11.31	19.80
. 1	Johns	1911	116,118	5,307	21.88	j
		1912	141,914	7,106	19.97	
		1908	194,522	9,386	20.72	
		1909	313,710	16,513	18.99	1000
5	Stettler	1910	595,639	41,998 27.060	14.18	18.94
		$\frac{1911}{1912}$	$836,811 \\ 1,091,554$	$37,060 \\ 59,745$	$egin{array}{c} 22.58 \ 18.27 \ \end{array}$	
		1908	281,455	16,650	16.90	
		1909	522,373	36,374	14.36	
6	Sedgewick	1910	1,492,032	79,504	18.77	17.51
ıo	betige wick	1911	1,810,155	92,960	19.47	1
		1912	3,236,124	179,109	18.06	
		1908	14,728	714	20.62	ļ
		1909	21,508	940	22.87	20.00
L7	Innisfail	1910	28,105	$^{1,625}_{1,111}$	$17.30 \\ 23.86$	20.28
		$\frac{1911}{1912}$	$26,508 \ 32,257$	1,922	16.78	
		1908	12,472	598	20.85	
		1909	16,299	727	22.41	
18	Red Deer	1910	44,112	, £59	18.70	21.39
		$\frac{1911}{1912}$	72,837 40,923	$\frac{3,419}{1,725}$	$21.30 \\ 23.71$	
					1	
		1908	21.186	933	22.70	
10	Lagamba	$\frac{1909}{1910}$	32,930	$^{1,611}_{6,831}$	$ \begin{array}{c c} 20.44 \\ 16.34 \end{array} $	21.88
19	Lacombe	$1910 \\ 1911$	111,584 183,480	7,888	23.26	21.00
		1912	96,912	3,632	26.68	
		1908	38,825	1,911	20.31	
	!	1909	43,337	2,106	20.57	
20	Ponoka	1910	78,064	$\frac{3.279}{3,893}$	$23.81 \\ 23.15$	22.22
20		1911	90,153			

SPRING WHEAT—Continued

No	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
		1908	30,438	1,590	19.14	
		1909	28,973	1,295	22.38	
21	Westaskiwin	1910	51,691	$\frac{1,2}{2,767}$	18.68	22.73
	W OSCIONITIVITY	1911	100,886	$\frac{5}{3},721$	27.11	
		1912	115,724	4,391	26.35	
		1908	42,028	2,232	18.82	
		1909	21,256	881	24.17	
22	Leduc	1910	33,986	1,475	23.04	21.77
		1911	42,793	1,917	22.32	
		1912	44,306	2,098	21.12	
		1908	174,935	9,451	18.50	
an	G	1909	139,720	8,144	17.15	70 05
23	Camrose	1910	209,410	14,014	14.94	19.65
		1911	365,768	14,899	24.55	
		1912	369,076	15,949	23.14	
		1908	108,590	6,081	17.85	
		1909	245,989	12,146	20.52	1
24	Alexandra	1910	405,575	30,427	13.35	16.85
		1911	591,678	36,264	16.82	
		1912	741,040	47,169	15.71	
		1908	61,319	4,003	15.31	
	J	1909	248,260	11,278	22.01	
25	Vermilion	1910	373,908	28,075	13.32	17.21
		$\begin{array}{c} 1911 \\ 1912 \end{array}$	442,335 451,357	24,995 $25,457$	$17.70 \\ 17.73$	
		1908		0.509	16.35	
		1909	$\begin{array}{c c} 155,416 \\ 199,327 \end{array}$	9,503 $10,033$	19.87	
26	Vegreville	1910	166,403	15,002	12.56	17.65
_ ()	TO STORY TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TH	1911	388,928	18,661	20.84	11/
		1912	306,103	16,430	18.63	1
•		1908	64,089	3,247	19.73	1
		1909	55,557	2,573	21.59	
27	Strathcona	1910	78,281	3,749	20.88	22.38
	!	1911	115,720	4,528	25.55	
		1912	120,909	5,050	24.15	
		1908	63,079	3,190	19.77	;
	ļ.,,	1909	52,909	2,945	17.96	1
28	Stony Plain	1910	78,325	4,371	17.92	17.47
		1911 1912	$\frac{115,841}{71,808}$	$\substack{5,487\\6,755}$	$21.11 \\ 10.63$	
		1908	2,349	178		I
		1908	321	9	$13.19 \\ 35.66$	
29	Lac Ste. Anne	1910	$\frac{521}{1,221}$	46	$\frac{55.56}{26.54}$	23.86
,	Zate	1911	1,326	61	21.74	20,000
		1912	1,909	86	$\frac{21.11}{22.19}$	
		1908	5,310	270	19.66	
		1909	1,882	114	16.50	1
30	Pembina	1910	3,861	203	19.30	18.99
		1911	4,331	213	20.33	1
		1912	5,515	292	19.19	

SPRING WHEAT—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
		1908	31,649	1,612	19.63	
		1909	13,741	717	19.14	Ŷ.
31	St. Albert	1910	12,478	446	27.98	24.29
		1911	14,966	686	21.81	1
		1912	16,452	500	32.90	1
		1908	58,247	3,219	18.09	
	1	1909	27,150	1,392	19.50	1
32	Sturgeon	1910	69,393	3,183	21.80	21.80
	1	1911	46,775	2,096	22.31	1
		1912	65,316	2,389	27.34	
		1908	146,942	7,820	18.79	
		1909	146,786	7,484	19.90	1
33	Victoria	1910	230,093	12,825	17.94	20.26
		1911	275,436	11,729	23.48	4
		1912	258,742	12,204	21.20	
		1908	14,035	749	18.73	
		1909	30,041	1,385	21.69	1
34	Pakan	1910	39,341	1,824	21.56	18.83
		1911	45,834	2,750	16.67	1
		1912	47,383	3,049	15.54	
		1908	964	31	31.09	
		1909	2,477	105	23.58	
35	Athabasca	1910	2,878	194	14.84	204.8
	!	1911				,
	'	1912	15,950	1,283	12.43	
		1908	22,704	674	33,68	
		1909	11,425	732	15.60	
36	Peace River	1910	29,396	1,476	19.93	22.72
		1911	23,177	878	26.40	1
		1912	22,883	1,271	18.00	!
	Indian Reserves	1912	5,606	439	12.77	12.77

WINTER WHEAT

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
1	Cardston	1908 1909 1910 1911 1912	380,625 733,626 598,671 1,155,096 722,618	14,153 28,227 32,189 46,318 32,738	$\begin{array}{c} 26.89 \\ 25.99 \\ 18.59 \\ 24.94 \\ 22.07 \end{array}$	23.69
2	Macleod	1908 1909 1910 1911 1912	$\begin{array}{c} 48,858 \\ 105,557 \\ 18,337 \\ 291,498 \\ 153,385 \end{array}$	1,483 3,911 5,580 9,367 8,331	32.94 26.98 12.25 31.12 18.41	24.34
3	Lethbridge	1908 1909 1910 1911 1912	$\begin{array}{c} 126,912 \\ 212,852 \\ 40,709 \\ 199,664 \\ 62,535 \end{array}$	4,112 8,767 4,580 14,639 3,371	30.86 24.27 8.89 13.64 18.55	19.24

WINTER WHEAT—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
4	Pincher Creek	1908 1909 1910 1911 1912	218,656 193,878 300,288 494,925 408,274	8,175 8,182 15,942 22,594 19,590	26 74 23.69 18.84 21 91 20.84	22.40
5	Claresholm .	1908 1909 1910 1911 1912	471,399 278,989 67,114 548,418 150,640	16,801 9,836 7,054 23,055 9,052	28.05 28.36 9.52 23.80 16.64	21.27
6	Medicine Hat .	1908 1909 1910 1911 1912	8,858 33,662 26,531 247 38,806	335 1,382 1,829 12 2,470	26.44 24.35 14.50 20.58 15.71	20 31
7	Nanton .	1908 1909 1910 1911 1912	279,617 153,744 52,896 561,238 177,729	9,697 8,039 4,819 19,146 11,654	28 83 19.12 10 98 29.31 15.25	21.69
8	High River	1908 1909 1910 1911 1912	$\begin{array}{c} 670,678 \\ 321,389 \\ 110,641 \\ 387,184 \\ 282,213 \end{array}$	21,745 9,413 12,840 13,392 11,745	30.84 34.13 8.62 28.91 24.02	25.30
9	Rocky Mountain.	1908 1909 1910 1911 1912	214	10	21.40	21.40
10	Okotoks	1908 1909 1910 1911 1912	76,751 47,417 48,465 914,542 34,068	2,921 2,713 3,336 15,848 1,608	26.27 17.47 14.53 27.01 21.18	21 29
11	Cochrane	1908 1909 1910 1911 1912	44,830 21,292 94,251 36,935 32,952	1,691 1,440 6,913 2,244 2,356	26.51 14.78 13.63 16.46 13.98	17.07
12	Gleichen .	1908 1909 1910 1911 1912	127,689 43,821 94,029 89,347 80,766	3,921 1,605 8,682 4,859 4,006	32.55 27.30 10.83 18.38 20.16	21.84
13	Didsbury	1908 1909 1910 1911 1912	272,121 42,937 215,593 73,794 65,660	8,776 2,096 13,746 3,773 3,720	31.00 20.47 15.68 19.56 17.68	20 87

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WINTER WHEAT—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
14	Olds	1908 1909 1910 1911 1912	27,824 33,225 33,730 6,392 8,531	$ \begin{array}{c} 1,357 \\ 1,739 \\ 2,112 \\ 1,032 \\ 702 \end{array} $	20 50 19 10 15.97 6 19 12 15	14 78
15	Stettler	1908 1909 1910 1911 1912	17,236 $2,601$ $1,861$ $25,392$ $10,322$	749 247 145 1,311 709	23 01 10 53 12 83 26 99 13 14	17 30
16	Sedgewick	1908 1909 1910 1911 1912	$\begin{array}{c} 998 \\ 1,324 \\ 39,094 \\ 5,854 \\ 6,697 \end{array}$	$\begin{array}{c} 75 \\ 77 \\ 2,578 \\ 300 \\ 275 \end{array}$	13 30 17 19 15 16 17 68 24 35	17 53
17	Innisfail	1908 1909 1910 1911 1912	38,906 7,436 39,713 19,257 10,974	1,419 404 1,897 984 544	27 41 15 92 20 93 19 57 20 17	20 80
18	Red Decr	1908 1909 1910 1911 1912	34,363 15,350 49,117 1,778 9,887	1,121 963 2,878 690 578	30 65 15 91 17 07 25 78 17 10	21 30
19	Lacombe .	1908 1909 1910 1911 1912	28,624 20,231 91,034 31,570 32,323	1,136 1,270 3,905 2 535 1,427	25 19 15 92 23 31 12 45 22 65	19 90
20	Ponoka , , ,	1908 1909 1910 1911 1912	5,627 9,794 11,625 18,175 2,578	252 550 635 733 192	22 32 17 88 18 31 24 79 13 42	19 34
21	Wetaskiwin	1908 1909 1910 1911 1912	1,906 9,314 31,031 59,813 6,534	99 418 1,631 2,470 362	19 25 22 27 20 87 24 22 18 05	20.93
22	Leduc	1908 1909 1910 1911 1912	8,192 3,063 27,074 26,856 14,734	310 193 1,131 1,144 963	27 39 15 87 23 89 23 47 15 30	21 18
23	Camrose	1908 1909 1910 1911 1912	3,180 5,233 17,598 11,603 7,670	146 328 1,078 556 314	21.78 15.95 16.32 20.87 24.42	19 86

WINTER WHEAT—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
24	Alexandra	1908 1909 1910 1911 1912	$\begin{array}{c} 92 \\ 32 \\ 21,266 \\ 15,913 \\ 25,967 \end{array}$	5 1 1,331 708 1,518	18.40 32 00 15.98 22 47 17.10	21.19
25	Vermilion	1908 1909 1910 1911 1912	781 31 5,256 504 162	41 3 288 37 8	19 04 10 33 18 25 13 89 20 25	16.35
26	Vegreville	1908 1909 1910 1911 1912	2,271 1,612 19,177 1,823 8,530	97 210 1,271 84 332	23 41 7.67 15 09 21 70 25.69	18.71
27	Strathcona	1908 1909 1910 1911 1912	8,155 4,595 15,157 23,848 3,427	271 159 671 858 159	30.09 28.90 22.59 27.79 21.55	26.18
28	Stony Plain	1908 1909 1910 1911 1912	7,940 10,198 45,640 81,914 1,046	401 710 1,918 4,257 143	19 80 14 35 23 71 19 95 7 31	17 02
29	Lac Ste. Anne	1908 1909 1910 1911 1912	760 172 808 360	36 9 16 14	21.11 19.11 31.07 25.71	24.25
30	Pembina	1908 1909 1910 1911 1912	1,164 3,850 248	46 154 13	25 30 25 00 19 07	23.12
31	St. Albert	1908 1909 1910 1911 1912	826 3.453 5,359 17,629 7,715	51 150 182 659 211	16 19 23.00 29.45 26.75 36.51	26.38
32	Sturgeon	1908 1909 1910 1911 1912	4,631 2,847 12,070 26,175 398	148 146 502 990 35	31 29 19 50 24 04 26 45 11 31	22.51
33	Victoria	1908 1909 1910 1911 1912	955 1,565 13,475 40,218 5,582	34 83 595 1,418 312	28.08 18.85 22.65 28.38 17.89	23 17

WINTER WHEAT-Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
34	Pakan	1908 1909 1910 1911 1912	2,742 2,529 1,334	130 176 266	21 09 14 37 5 01	13.49
35	Athabasca	1908 1909 1910 1911 1912	856 32 3,177	33 2 69	25 94 26 00 47 49	33.14
36	Peace River	1908 1909 1910 1911 1912	2,818 3,443	127 118	22 19 29 17	25 68
	Indian Reserves	1912	14,590	906	16 10	16 10

OATS

No	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
1	Cardston .	1908 1909 1910 1911 1912	364,944 708,804 38,167 507,836 761,693	10,034 17,111 2,291 9,753 17,905	36.37 41.42 16.66 53.07 42.54	38 01
2	Macleod	1908 1909 1910 1911 1912	$\begin{array}{c} 60,292 \\ 209,087 \\ 2,223 \\ 111,063 \\ 134,423 \end{array}$	1,903 5,360 70 2,594 4,573	31 68 39 01 31 76 42.85 29.39	34.93
3	Lethbridge .	1908 1909 1910 1911 1912	$\begin{array}{c} 323,873 \\ 536,527 \\ 56,526 \\ 1,010,669 \\ 1,456,451 \end{array}$	10,182 17,808 2,644 23,804 48,392	$\begin{array}{c} 31 \ 80 \\ 30.12 \\ 21.37 \\ 42.46 \\ 30.09 \end{array}$	31.16
4	Pincher Creek	1908 1909 1910 1911 1912	$\begin{array}{c} 254,533 \\ 212,532 \\ 27,292 \\ 197,796 \\ 391,265 \end{array}$	7,746 5,222 1,785 5,249 10,120	32.85 40.69 15.29 37.68 38.66	33 03
5	Claresholm	1908 1909 1910 1911 1912	404,143 783,121 14,330 768,370 929,951	11,985 21,499 1,424 17,126 22,026	33.72 36.42 10.06 44.87 42.21	33.45

OATS-Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
б	Medicine Hat .	1908 1909 1910 1911 1912	60,662 378,815 25,300 495,422 752,844	4,099 9,650 1,958 13,416 28,106	14 79 39 24 12.92 36.93 26.78	26 13
7	Nanton .	1908 1909 1910 1911 1912	463,009 908,742 108,647 1,148,908 1,582,778	$14,140 \\ 28,091 \\ 5,906 \\ 21,832 \\ 36,025$	32.74 32.34 18.23 52.62 43.65	35.91
8	.;High River	1908 1909 1910 1911 1912	1,739,964 2,663,238 175,576 2,342,098 3,016,330	39,322 67,942 13,517 45,926 74,865	$\begin{array}{c} 44.24 \\ 39.15 \\ 12.99 \\ 50.99 \\ 40.29 \end{array}$	37 53
9	Rocky Mountain.	1908 1909 1910 1911 1912	1,274	60	21.23	21.23
10	Okotoks .	1908 1909 1910 1911 1912	652,825 1,148,105 79,742 914,542 977,620	15,519 25,762 5,230 15,848 26,050	42.06 44.56 15.25 57.70 37.52	39.41
11	 Cochrane	1908 1909 1910 1911 1912	$115,721 \\ 430,001 \\ 77,213 \\ 294,110 \\ 361,348$	2,998 9,816 4,501 8,385 10,324	28 59 44 87 17.15 35.07 35.00	32.13
12	Gleichen	1908 1909 1910 1911 1912	842,358 1,977,643 415,800 2,185,033 2,999,035	19,119 41,536 24,298 42,615 71,730	44.05 47 61 17.11 51 27 41 81	40.37
13	Didsbury	1908 1903 1910 1911 1912	1,214,959 1,974,309 747,948 1,122,678 1,920,768	$\begin{array}{c} 29,547 \\ 50,199 \\ 35,779 \\ 37,909 \\ 48,602 \end{array}$	41.11 $39 33$ 20.90 $29 66$ $39 52$	34 10
14	 Olds	1908 1909 1910 1911 1912	473,040 851,769 293,535 873,467 989,370	15,318 23,814 14,484 22,711 28,251	30 88 36 18 20 27 38 46 35 01	32 16
15	S tett ler .	1908 1909 1910 1911 1912	638,303 729,909 425,819 956,802 2,160,226	$\begin{array}{c} 15,318 \\ 22,972 \\ 22,632 \\ 22,529 \\ 55,245 \end{array}$	36.79 32.10 18.81 42.47 39.12	33.85

Oats—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
16	Sedgewick.	1908 1909 1910 1911 1912	536,623 749,583 595,764 1,453,396 3,401,071	15,922 28,206 27,151 33,257 84,373	33.70 26.57 21.94 43.70 40.30	33.24
17	Innisfail	1908 1909 1910 1911 1912	365,311 576,301 469,135 693,784 574,301	$\begin{array}{c} 10,824 \\ 16,229 \\ 16,805 \\ 16,824 \\ 15,074 \end{array}$	33 75 35.50 27.92 41.24 38.10	35.30
18	Red Decr	1908 1909 1910 1911 1912	350,666 392,701 322,763 385,448 538,075	9,644 12,397 11,421 11,103 14,725	36.36 31.67 28.26 34.72 36.54	33.51
19	Lacombe	1908 1909 1910 1911 1912	452,390 638,216 872,674 853,940 854,801	12,641 20,407 27,566 22,891 21,090	35.78 31.27 31.66 37.97 40.53	35.44
20	Ponoka	1908 1909 1910 1911 1912	459,679 542,273 461,756 714,138 834,889	12,069 13,026 16,155 19,347 22,528	36 28 41 62 28.52 36.40 37.06	35.97
21	Wetaskiwin	1908 1909 1910 1911 1912	579,347 876,408 699,722 826,391 921,495	$\begin{array}{c} 14,441 \\ 26,969 \\ 24,106 \\ 24,531 \\ 26,046 \end{array}$	40.11 32.45 29.02 33.69 35.37	34.12
22	Ledue	1908 1909 1910 1911 1912	560,383 491,777 598,881 653,851 523,996	18,026 18,596 19,875 19,318 18,398	31.08 26.45 30.13 33.84 28.48	29.99
23	Camrose	1908 1909 1910 1911 1912	1,065,212 1,345,214 905,425 2,242,006 2,477,098	28,208 43,871 44,549 48,586 59,388	37.76 30.82 20.07 46.10 41.71	35.29
24	Alexandra	1908 1909 1910 1911 1912	288,687 587,230 317,712 552,000 1,039,560	8,756 15,326 14,006 15,411 28,442	32.97 38.31 22.68 35.82 36.55	33.26
25	Vermilion	1908 1909 1910 1911 1912	256,070 693,011 396,993 455,330 861,507	8,321 19,175 18,480 13,326 21,810	30.77 36.14 21.48 34.16 39.95	32.50

OATS—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
26	Vegreville .	1908 1909 1910 1911 1912	1,779,862 1,133,872 563,020 1,367,033 1,661,783	27,248 36,118 32,589 35,735 45,628	28 62 31.36 17.28 38 25 36 42	30 38
27	Strathcona .	1908 1909 1910 1911 1912	515,140 680,058 590,539 913,599 949,236	13,055 20,009 17,581 21,043 23,501	39.45 33.98 33.59 43.41 40 39	38.16
28	Stony Plain	1908 1909 1910 1911 1912	304,748 441,274 352,576 405,696 468,234	9,414 13,672 11,788 15,992 13,931	32.25 32.20 29.92 25 37 33.68	30.68
29	Lac Ste. Anne	1908 1909 1910 1911 1912	23,311 9,644 21,611 31,866 55,163	860 357 561 1,006 1,700	27 10 27 29 38.32 31.68 32.44	31.56
30	Pembina .	1908 1909 1910 1911 1912	46,823 80,496 148,951 103,470 249,257	1,889 2,862 4,758 3,296 8,400	24 78 28 11 31.31 31.39 28.48	28 81
31	St. Albert	1908 1909 1910 1911 1912	502,355 602,960 647,945 597,145 602,203	14,073 17,412 16,073 16,103 16,280	35.69 34.62 40.31 37.08 36.92	36.92
32	Sturgeon	1908 1909 1910 1911 1912	564,711 606,450 884,598 1,070,572 1,176,028	14,937 17,519 25,114 26,102 27,920	37.80 34.66 35.22 41.01 42.12	38.16
33	Victoria	1908 1909 1910 1911 1912	421,057 737,804 639,811 1,034,170 1,030,428	12,727 21,315 19,619 25,340 26,571	33 08 34 61 32 61 40 81 38 74	35.97
34	Pakan	1908 1909 1910 1911 1912	54,466 85,201 174,089 247,254 266,751	2,048 2,836 6,647 9,379 8,900	26.59 30.00 26.19 26.36 29.97	27.82
35	Athabasca .	1908 1909 1910 1911 1912	1,777 28,438 30,795 24,085 27,075	60 649 1,033 702 519	29.61 43.81 29.81 34.31 52.36	37.98

Oats—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
36	Peace River	1908 1909 1910 1911 1912	3,998 4,157 5,552 51,061 89,320	72 167 190 838 2,788	55.52 24.89 29.22 60.93 32.03	40 51
	Indian Reserves.	1912	48,861	1,743	28.03	28.03

BARLEY

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
1	Cardston	1908 1909 1910 1911 1912	26,925 18,610 1,594 17,134 76,822	984 631 149 434 2,690	27 36 29 49 10.70 39.48 28.63	27.13
2	Macleod	1908 1909 1910 1911 1912	2,722 4,674 214 2,033 19,324	80 208 14 44 878	34 02 22.46 15.29 46.20 22 00	27.99
3	Lethbridge .	1908 1909 1910 1911 1912	40,917 16,308 1,082 9,971 168,059	1,704 674 48 282 7,459	24.01 25.20 22.54 35.36 22.53	25.92
4	Pincher Creek	1908 1909 1910 1911 1912	$\begin{array}{c} 4,707 \\ 17,257 \\ 106 \\ 2,442 \\ 36,881 \end{array}$	195 402 13 83 1,303	24 13 42 92 8.15 28 74 28 30	26.44
5	Claresholm	1908 1909 1910 1911 1912	$20,382 \\ 26,710 \\ 74 \\ 9,014 \\ 100,195$	915 1,086 5 308 4,278	22.27 24.58 14.80 29.27 23.42	22.86
ť	Medicine Hat	1908 1909 1910 1911 1912	3,800 37,767 1,584 30,142 128,242	459 1,115 147 745 6,332	8.27 33.85 10.71 40.45 20.25	22.70
7	Nanton	1908 1909 1910 1911 1912	25,354 11,713 40 7,809 59,484	1,191 491 4 208 2,025	21.28 23.85 10.00 37.36 29.37	24.37

Barley—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
8	High River	1908 1909 1910 1911 1912	87,323 92,268 2,424 74,219 357,383	3,738 3,350 544 1,883 12,094	23.36 27.51 4.46 39.42 29.55	24.86
9	Rocky Mountain.	1908 1909 1910 1911 1912	36	2 	.18	18.00
10	Okotoks	1908 1909 1910 1911 1912	100,836 121,253 5,245 77,173 177,902	3,284 3,997 576 2,106 6,665	30 70 30 36 9 11 36.63 26.69	26.69
11	Cochrane .	1908 1909 1910 1911 1912	26,163 75,590 5,135 18,232 135,828	1,158 2,361 656 2,199 4,887	$\begin{array}{c} 22.59 \\ 32.01 \\ 7.83 \\ 8.25 \\ 27.79 \end{array}$	19.69
12	Gleishen	1908 1909 1910 1911 1912	69,641 129,349 29,387 243,822 644,275	2,572 4,759 3,776 6,758 23,496	$\begin{array}{c} 27 \ 07 \\ 27.14 \\ 7.78 \\ 36.08 \\ 27.42 \end{array}$	25.09
13	Didsbury	1908 1909 1910 1911 1912	194.312 270,852 90,396 95,487 340,393	7,210 10,070 5,963 4,371 12,616	26 95 26 89 15 16 21 84 26 98	23.56
14	Olds	1908 1909 1910 1911 1912	52,353 114,659 43,814 97,683 168,318	2,593 3,879 2,488 3,468 6,136	20 19 29 55 17.61 25 25 27.43	24 00
15	Stettler	1908' 1909 1910 1911 1912	65,054 61,635 33,026 41,754 279,541	2,459 2,515 2,369 1,328 10,005	26.45 24.50 13.98 31.44 27.94	24.86
16	Sedgewick.	1908 1909 1910 1911 1912	28,358 40,810 41,622 88,023 578,080	1,645 1,980 2,536 2,960 19,595	17 23 20.61 16.41 29.40 24.39	21.60
17	Innisfail .	1908 1909 1910 1911 1912	74,126 92,235 86,434 108,114 89,379	2,974 3,672 3,756 3,307 3,204	24.92 25.11 23.01 32.69 27.89	26.72

Annual Report, 1912

BARLEY-Continued

						1
No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
18	Red Deer	1908 1909 1910 1911 1912	50,453 78,894 65,427 78,778 136,308	2,057 2,992 2,944 2,632 4,690	24 52 23 37 22 22 29 93 29 06	25.82
19	Lacombe	1908 1909 1910 1911 1912	73,233 81,736 141,980 143,863 235,530	2,948 3,901 5,712 4,503 7,927	24 84 20 95 24 86 31 94 29 83	26.48
20	Ponoka	1908 1909 1910 1911 1912	70,069 83,400 100,462 164,786 213,436	2,753 2,536 4,438 5,597 7,006	25 45 32 92 22 64 29 44 30 46	28 18
21	Wetaskiwin	1908 1909 1910 1911 1912	52,061 65,949 88,329 87,296 133,656	2,110 3,382 3,958 3,312 4,372	24 67 19 50 22 32 26 36 30 57	24.68
22	Leduc	1908 1909 1910 1911 1912	66,440 81,947 102,406 118,571 125,182	3,466 3,658 4,052 3,961 5,229	19 16 23 40 25 27 29 93 23 93	24 33
23	Camre se	1908 1909 1910 1911 1912	109,604 123,725 80,311 181,504 277,761	4,183 5,458 5,112 5,853 8,756	26 20 22.66 15 71 31 01 31 72	25 46
24	Mexandra	1908 1909 1910 1911 1912	33,606 43,714 22,878 46,493 155,711	1,538 1,793 1,298 1,613 5,811	21 85 24 38 17 63 28 20 26 79	23 77
25	Vermilion .	1908 1909 1910 1911 1912	22,370 70,678 44,365 60,808 148,496	$\begin{array}{c} 1,111 \\ 2,760 \\ 2,653 \\ 2,493 \\ 5,044 \end{array}$	20 13 25 00 16 72 24 37 29 44	23 13
26	Vegreville	1908 1909 1910 1911 1912	92,954 151,299 82,250 169,530 214,720	3,993 6,251 5,897 6,212 7,494	23.27 24.20 13.94 27.29 28.65	23 4
27	Strathcena	1908 1909 1910 1911 1912	96,952 162,259 164,212 217,516 261,723	3,684 5,912 5,611 6,555 8,561	26 31 27.61 29 26 37 18 30 55	30 1

Barley-Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
28	Stony Plain	1908 1909 1910 1911 1912	85,671 117,817 96,610 180,473 191,690	2,820 4,405 4,222 6,384 7,402	30 37 26.21 22.88 28.27 25 89	26 72
29	Lac Ste. Anne	1908 1909 1910 1911 1912	7,083 1,496 6,293 5,004 10,562	401 136 187 191 420	17.66 11.00 33.65 31.43 25.14	23 77
30	-Pembina	1908 1909 1910 1911 1912	10,946 18,494 26,926 16,133 46,339	455 886 1,083 683 1,907	24 05 20 87 24 86 23 62 24 29	23.53
31	St. Albert	1908 1909 1910 1911 1912	82,588 124,499 87,550 89,421 125,521	2,303 5,167 2,916 3,172 4,616	35.86 24 09 30 02 28 19 27 19	29.07
32	≺turgeon	1908 1909 1910 1911 1912	117,540 147,560 186,538 196,896 227,068	4,212 5,342 6,680 7,090 7,145	27 90 27.62 27 93 27.27 30 49	28 24
3 3	Victoria	1908 1909 1910 1911 1912	110,894 204,984 194,514 286,543 325,738	$\begin{array}{c} 6,348 \\ 10,512 \\ 8,565 \\ 9,397 \\ 11,425 \end{array}$	17 46 19.52 22.71 30 49 28 51	23 73
34	Pakan	1908 1909 1910 1911 1912	16,316 25,124 43,444 61,382 61,404	678 1,115 2,059 2,876 2,791	$\begin{array}{c} 24.06 \\ 22.53 \\ 21.09 \\ 21.34 \\ 22.00 \end{array}$	22 20
35	Athabasca	1908 1909 1910 1911 1912	460 4,511 2,625 2,717 2,616	15 178 106 106 50	30 66 25.33 24.76 25.63 52.32	31.74
3 6	Peace River	1908 1909 1910 1911 1912	5,569 5,546 10,232 6,818 6,614	130 227 364 •188 244	42.83 24 43 28.11 36.26 27.10	31 74
	Indian Reserves	1912	3,531	202	17.58	17.58



Owned and shipped by George Lane, Calgary, to Chicago, where on October 14, 1912, the tops brought \$10.25 per cwt.—the highest price ever paid for cattle off the range. No. 2.—Carload of Alberta Range Steers.

FLAX

No	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
		1908	3,358	246	15.68	
		1909	1,780	147	12.11	
1	Cardston	1910			::	12 51
		1911 1912	8,740 55,256	867 4,540	10.08 12.17	Ţ
		1908				
	Maraland	1909	165	33	5.00	1
2	Macleod	1910	0.000		07.00	15.18
		1911 1912	2,080 8,492	81 571	25.68 14.87	ľ
		1908	10,064	1,475	6.82	
		1909	17,166	1,637	10.48	
3	Lethbridge	1910	22	34	.65	7.82
	1	1911 1912	29,992 208,351	2,937 19,044	10.21 10.94	
	1	1908				
	la	1909	281	28	10.03	1 10 01
4	Pincher Creek	1910				12.31
		1911 1912	657	45	14.60	
	1	1908	3,714	436	8.51	
_	l.,	1909	1,467	121	12.13	11.00
5	Claresholm	1910	24,074	2,462	9.76	11.96
		1911 1912	62,535	3,587	17.43	1
		1908	3,127	532	5.87	1
0	NA INC. IT A	1909	1,823	174	10.47	7.86
6	Medicine Hat .	1910 1911	393 20,634	113 1,916	3.48 10.76	7.00
		1912	302,466	34,726	8.71	1
		1908	6,761	858	7.88	1
7	NT 4	1909	2,660	454	5.85	9.89
'	Nanton	1910 1911	712	46	15.49	9.09
		1912	12,783	1,236	10.34	1
	4	1908	9,039	1,237	7.30	4
0	III b Din	1909	911	87	10 47	9.42
8	High River	1910 1911	533	58	9.19	9.74
		1912	9,777	911	10.73	+
		1908				1
9	Poolen Mountain	1909		1		
9	Rocky Mountain	1910 1911				
		1912			V	
		1908	1,269	104	12.00	
10	Oleatalea	1909	8,089	420	19.25	14.47
10	Okotoks	1910 1911	769 260	95 20	8.09 13.00	14.47
		1912	6,652	332	20.03	

FLAX—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
11	Cochrane	1908 1909 1910 1911 1 9 12	4,958 873	41 206 211 273 193	9.21 24.06 4.14 3.06 14.25	10 94
12	Gleichen	1908 1909 1910 1911 1912	6,946 51,822 12,754 20,676 135,120	555 4,498 1,174 2,068 12,713	12.51 11 52 3 06 9.99 10.62	9.54
13	Didsbury	1908 1909 1910 1911 1912	2,314 4,305 3,217 628 21,354	342 306 1,258 111 1,704	6.76 14.06 2.57 5.66 10.71	7.95
14	Olds	1908 1909 1910 1911 1912	385 1,151 1,703 572 5,761	45 102 244 54 500	$\begin{array}{c} 8 & 55 \\ 11.28 \\ 6 & 98 \\ 10.59 \\ 11 & 52 \end{array}$	9.78
15	Stettler	1908 1909 1910 1911 1912	8,261 10,452 10,409 12,827 80,654	1,019 1,282 2,405 1,643 7,530	8.10 8 15 4 33 7.81 10 71	7.82
16	Sedgewick	1908 1909 1910 1911 1912	7,761 11,069 10,369 12,596 196,987	$\begin{array}{c} 1,163 \\ 1,648 \\ 2,761 \\ 1,706 \\ 17,762 \end{array}$	6.67 6.71 3.76 7.38 11.09	7.12
17	Innisfail	1908 1909 1910 1911 1912	13 75 120 	3 7 13 ·	$\begin{array}{c} 4.33 \\ 10.71 \\ 9.23 \\ \vdots \\ 7.85 \end{array}$	8.03
18	Red Deer	1908 1909 1910 1911 1912	246 165 397 1,375 325	11 13 176 55 33	22 36 12 69 2 26 25 00 9 85	14,43
19 .	Lacombe	1908 1909 1910 1911 1912	175 246 334 2,221 35	10 16 37 261 3	17 50 15.38 9.03 8 50 11 66	12.41
20	Ponoka	1908 1909 1910 1911 1912	121 314 84 6,030	14 29 61 520	8.64 10.83 14.00 11.59	11.26

Flax—Continued

No	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
21	Wetaskiwin	1908 1909 1910 1911 1912	12 229 143 39 45	1 13 22 13 6	12 00 17 21 6.50 3.00 7.50	9.24
22	Leduc	1908 1909 1910 1911	367 111	15 7 5	21 46 15 86	25 90
23	Camrose	1912 1908 1909 1910 1911 1912	1,698 3,027 2,107 2,637 10,232	149 317 445 328 905	11.39 9 54 4.51 8.04 11.30	8.95
24	Alexandra .	1908 1909 1910 1911 1912	1,914 7,241 8,513 9,503 61,455	171 750 1,444 1,228 5,159	11.19 9.65 5.89 7.74 11.91	9.27
25	Vermilion	1908 1909 1910 1911 1912	301 1,294 2,002 1,558 4,660	47 139 686 156 378	$\begin{array}{c} 6.40 \\ 9.30 \\ 2.92 \\ 10.18 \\ 12.32 \end{array}$	8.22
26	Vegreville	1908 1909 1910 1911 1912	1,091 210 580 1,462	88 12 121 	12.39 17.50 4.79	11.66
27	Strathcona	1908 1909 1910 1911 1912	232	19	12 21 12.73	12.47
28	Stony Plain	1908 1909 1910 1911 1912	50 32 14 	4 1 1 	12.50 32.00 14.00 26.06	21.14
29	Lac Ste. Anne	1908 1909 1910 1911 1912				
30	Pembina	1908 1909 1910 1911 1912				

FLAX—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
31	St. Albert	1908 1909 1910 1911 1912	25 	3 	8.33 	8.33
32	Sturgeon	1908 1909 1910 1911 1912	144	12	i2.00	12.00
33	Victoria	1908 1909 1910 1911 1912	10 77 81 1,300 22	$egin{array}{c} 1 \\ 5 \\ 12 \\ 260 \\ 1 \end{array}$	$10.00 \\ 15.40 \\ 6.75 \\ 5.00 \\ 22.00$	11.83
34	Pakan	1908 1909 1910 1911 1912	76 	4 	19 00 	19.00
35	Athabasca	1908 1909 1910 1911 1912				
36	Peace River	• • • •	47	8	5.87	5.87

Speltz

No.	CROP DISTRICT	Year	Bushels	.1creage	Yield per acre	Average yield
1	Cardston	1908 1909 1910 1911 1912	356 214 	31 12 	11.48 17.83 34.47	21.26
2	Macleod	1908 1909 1910 1911 1912				
3	Lethbridge	1908 1909 1910 1911 1912	670 109 4,581	44 5 	15.22 20.80 15.45	17.15

Speltz—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
		1908 1909	34 569	1 12	34.00 46.75	
4	Pincher Creek	1910 1911 1912	949	19	49.95	43.56
		1908 1909	2,798 836	160 44	17.48 19.00	
5	5 Claresholm	1910 1911 1912	656	37	17.76	18.08
		1908 1909	10 933	3 29	$\frac{3.33}{32.16}$	
6 Medicine Hat	1910 1911 1912	625 1,647	27 108	23.15 15.25	18.47	
		1908 1909				
7	Nanton	1910 1911 1912				
1		1908 1909	·:			
8	High River	1910 1911 1912				
		1908 1909				
9	Rocky Mountain	1910 1911 1912				
		1908 1909				
10	Okotolis	1910 1911 1912				
		1908 1909	420	21	20.00	
11	Cochrane .	1910 1911 1912			. .	20.00
		1908 1909	2,513	69	36.42	
2	Gleichen	1910 1911	38	3	12 66	23.74
		1912	1,064	48	22.16	
13	Didsbury	1908 1909 1910	564 718 94	$\begin{bmatrix} 38 \\ 22 \\ 12 \end{bmatrix}$	$14.84 \\ 32.63 \\ 7.83$	19.43
	1	1911 1912	157	7	22.43	

Speltz—Continued

Ne.	CROP DISTRIÇT	Year	Bushels	Acreage	Yield per acre	Average yield
****		1908	514	22	24 59	
	011	1909	162	10	16 20	14.63
14	Olds .	1910 1911				11.00
		1912	25	8	3 12	
		1908	163	3	54 32	
		1909	761	39	19 33	29.31
.5	Stettler	1910 1911	1,992	70	28.46	20.01
		1912	999	66	15 13	
		1908	356	32	11.12	
Sedgewick	a 1 11	1909	738	$\frac{28}{2}$	$26.35 \\ 13.00$	17.90
	Sedgewick	1910 1911	26		10.00	1.00
	1912	1,200	59	20 31		
		1908				
17 Inniafad	T : C 1	1909				
7	Innisfail	1910 1911				
		1912			ı	
]		1908	1 .	•		
	0 0 10	1909 1910				
8	Red Deer	1910				
		1912				i
		1908	ļ			
	T 1	1909 1910				
9	Lacomb ¹	1910			1 .	Ì
		1912				
		1908				
20	Ponoka	1909 1910		• • •		
20	ronoka	1911	1			
		1912				
		1908	96	2	48 00	
	TTT . 1	1909				25.84
21	Wetaskiwin	1910 1911			ĺ	
		1912	554	150	3 69	
		1908	224	7 3	32 00	
Ledue	T	1909 1910	55		18 33	25.16
	redue	1911				
		1912				
		1908				
20		1909				21.90
23	Camrose	$\begin{array}{ c c }\hline 1910\\1911\end{array}$	988	45	21.96	-1.0
	}	1912				4

Speltz—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
24	Alexandra	1908 1909 1910 1911 1912		 5 7	25.40 42.71	34.05
25	Vermilion	1908 1909 1910 1911 1912	129 150 228	7 7 8	18.42 21.42 28.50	22.78
26	Vegreville	1908 1909 1910 1911 1912	360 542	10 30	36.00 18 06	27.03
27	Strathcona	1908 1909 1910 1911 1912		· · · · · · · · · · · · · · · · · · ·	· ·	
28	Stony Plain	1908 1909 1910 1911 1912				
29	Lac Ste. Anne	1908 1909 1910 1911 1912	26 ·	1 	26.00	26 00
30	Pembina	1908 1909 1910 1911 1912				
31	St. Albert	1908 1909 1910 1911 1912		· · · · · · · · · · · · · · · · · · ·	: :	
32	Sturgeon	1908 1909 1910 1911 1912				
33	Victoria	1908 1909 1910 1911 1912	170	7	24.29	24 29

Speltz—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
34	Pakan	1908 1909 1910 1911 1912	15 50	1 2	15 00 	20.00
35	Athabasca	1908 1909 1910 1911 1912				

RyE .

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
1	Cardston	1908 1909 1910 1911 1912	· · · · · · · · · · · · · · · · · · ·	6	21 16	21 16
2	Macleod	1908 1909 1910 1911 1912	· · ·			
3	Lethbridge	1908 1909 1910 1911 1912	345 77 1,157	28 14 	12 32 5 60 34 02	17 31
4	Pincher Creek .	1908 1909 1910 1911 1912				
5	Claresholm .	1908 1909 1910 1911 1912	63	······ ······ 3	21.00	21 00
6	Medicine Hat .	1908 1909 1910 1911 1912	 132 181		13 2 20.11	16.65

RyE-Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
7	Nanton	1908 1909 1910 1911 1912	-			- • • •
8	Hig'i River	1908 1909 1910 1911 1912	851	28	30 39	30.39
9	Rocky Mount dn	1908 1909 1910 1911 1912				
10	Okotoks	1908 1909 1910 1911 1912	669 924 896	33 76 40	20.27 16.50 	19 72
11	Cochrane	1908 1909 1910 1911 1912	100 1,369 142	5 47 29	20 00 27.01 4 90	17.30
12	Gleic' en	1908 1909 1910 1911 1912	726	. 20	36 30	36.30
13	Didsbury	1908 1909 1910 1911 1912	881 1,692 2,042 9,661 29,717	48 69 156 839 1,232	19.19 24.51 13.09 11.51 24.12	18.48
14	Olds	1908 1909 1910 1911 1912	92 411 677 124 3,948	6 23 23 6 174	15.33 17.87 29.43 20.67 22.69	21.19
15	Stettler	1908 1909 1910 1911 1912	179 113 202 130	13 7 6 8	13.76 16.14 33.67 16.25	19.95
16	Sedgewick	1908 1909 1910 1911 1912	23 144 110 152 1,167	$\begin{bmatrix} 1 \\ 14 \\ 7 \\ 6 \\ 76 \end{bmatrix}$	23.00 10.27 15.71 25.33 15.35	17.93

RyE-Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
17	Innisfail	1908 1909 1910 1911 1912	1,190 976 752 1,051 338	38 53 66 37 12	31.31 18 41 11 39 28.40 28 16	23.53
18	Red Deer	1908 1909 1910 1911 1912	1,863 1,023 1,132 1,944 836	126 35 114 93 57	14.78 29.20 9.93 20.91 14.66	17.89
19	Lacombe	1908 1909 1910 1911 1912	2,276 3,328 4,887 4,478 2,456	120 246 190 183 109	18.96 11 00 25 72 24 47 22.53	21 13
20	Ponoka	1908 1909 1910 1911 1912	10,620 10,379 13,887 13,594 10,208	626 742 630 622 600	16.96 13.98 22.04 21.85 17.01	18.36
21	Wetaskiwin .	1908 1909 1910 1911 1912	272 2,403 616 1,969 1,333	12 118 33 67 64	22.66 20.36 18.67 29.89 20.82	22 48
22	Leduc	1908 1909 1910 1911 1912	72 36	4 ····· ·· ··· 6	18.00 6.00	12.00
23	Camrose	1908 1909 1910 1911 1912	898 1,317 1,233 1.850 1,142	46 77 79 91 51	19 52 17.10 15.61 20.33 21.15	18 74
24	Alexandra	1908 1909 1910 1911 1912	224 	 11 111	20.36 7.88	14.12
25	Vermilion	1908 1909 1910 1911 1912	24 	1 37	24.00 17.92	20.96
26	Vegreville	1908 1909 1910 1911 1912	927 212 453	56 8 47	16.55 26.50 9.63	17.56

RyE—Continued

No.	CROP DISTRICT	Year	Bushels	Acreage	Yield per acre	Average yield
27	Stratheona	1908 1909 1910 1911 1912			 	
28	Stony Plain	1908 1909 1910 1911 1912	68	5	13 60 	13.60
29	Lac Ste. Anne	1908 1909 1910 1911 1912				
30	Pembina	1908 1909 1910 1911 1912			-	
31	St. Albert	1908 1909 1910 1911 1912				
32	⊰turgeon	1908 1909 1910 1911 1912	132 	8 15 	16.50 22.75	19.62
33	Victoria	1908 1909 1910 1911 1912	453 711 503	21 45 34	21.57 15.80 14.79	17.38
34	Pakan · · ·	1908 1909 1910 1911 1912	84 364 972 556	3 16 58 27	28.00 22.75 16.76 20.59	17.62
35	Athabasca	1908 1909 1910 1911 1912				
36	Peace River	1908 1909 1910 1911	78	5	15.60	15.60

SUMMARY OF THE ACREAGE AND YIELDS OF THE LEADING GRAINS DURING THE LAST TWELVE YEARS

	YEAR	Crop area in acres	Total yields in bushels	Average yield per acre	Average yield
Spring Wheat	1912 1911 1910 1909 1908 1907 1906 1905 1904 1903 1902 1901	957,874 757,493 450,493 324,472 212,677 123,935 115,502 75,353 47,411 59,951 45,064 34,890	17,434,774 15,730,238 5,697,956 6,155,455 4,001,504 2,261,610 2,664,661 1,617,505 786,075 1,118,180 850,122 857,714	18 20 20.75 12.85 18.97 18.81 18 25 23.07 21 46 16.58 18.65 18.86 24.58	19 25
Winter Wheat .	1912 1911 1910 1909 1908 1907 1906 1905 1904 1903	120,811 182,671 142,467 102,167 104,955 83,965 61,625 32,174 8,296 3,440	2,395,875 4,336,749 2,206,564 2,312,344 3.093,422 1,932,925 1,301,359 689,019 152,125 82,418	19.83 23.74 15 48 22.63 29 47 20.66 21.11 21 41 18 33 23.95	21 66
Oats.	1912 1911 1910 1909 1908 1907 1906 1905 1901 1903 1902	971,969 669,827 492,589 693,901 431,145 307,093 335,728 242,801 180,698 162,314 118,997 104,533	37,085,234 27,604,993 12,158,530 24,819,661 15,922,974 9,247,914 13,136,913 9,514,180 5,609,496 5,187,511 3,776,976 4,253,284	38.15 41.21 24.68 35.76 36.93 30.11 39.12 39.18 31.04 31.95 31.74 40.68	35 04
Barley .	1912 1911 1910 1909 1908 1907 1906 1905 1904 1903 1902 1901	225,055 103,302 90,901 107,764 77,876 54,698 73,588 64,830 61,549 42,219 22,201 13,483	6,287,112 3,037,584 1,889,509 3,310,332 1,949,164 1,082,460 2,157,957 1,773,914 1,608,241 1,077,274 473,108 442,381	27.94 29.41 20.79 30.72 25.03 19.78 29.32 27.36 26.12 25.51 21.31 32.81	26 34

Summary of the Acreage and Yields of the Leading Grains During the Last Twelve Years.---Continued

	YEAR	Crop area in acres	Total yields in bushels	Average yield per acre	Average yield
	1010	110 770	1 100 410	10.00	
	1912	112,776	1,196,416	10.60 9.30	
	1911	16,549	153,908	3.02	1
	1910	15,271	46,155	10.54	
	1909	12,479	131,531	7.96	
71	1908	9,262	73,762	7.87	0.02
Flax	. 1907	6,488	50,002		9.93
	1906	3,647	38,491	10.65 14.34	
	1905	581	8,337		
	1904	367	5,003	13.63	
	1903	830	7,753	9.34	l
	1902	373	4,476	12.00	
	1912	2,493	54,119	21.70	
	1911	2,190	38,722	17.68	
	1910	1,522	28,306	18.60	
Рус	. 1909	1,592	25,801	16.20	18 56
-5 -	1908	1,250	22,625	18.10	
	1907	591	10,595	17.91	[
	1906	1,139	22,462	19 70	
	1912	774	11,528	14.89	
	1911	203	5,337	26.29	
	1910	18	164	9.11	
	1909	269	6,369	23.67	-
Speltz	1908	484	9,697	20.03	21 37
porto	1907	151	3,346	22.15	
	1906	385	11,423	29 67	
	1905	178	4,419	24.82	1
•	1904	112	2,426	21.66	
		<u> </u>	Total crop		
1019			9 201 756	ea age	. 020
1912.			2,391,752	2 64,465	ง.บอช

	Total crop area	Total yield of grain
1912.	2,391,752	64,465,058
1911	4	50,907,531
1910	1,193,261	22,027,184
1909	1,242,644	36,761,493
1908		25,073,147
1907	576,821	14,588,852
190 6	591,614	19,333,266
1905		13,607,374
1904	298,433	8,163,366

III.—VITAL STATISTICS

The work of gathering and recording the births, marriages and deaths is becoming heavier each year and at the same time much more difficult. It takes time for the new comer to become acquainted with the law regarding these things. The difficulty of securing accurate figures of the events is the greatest trouble which may occur for the department, but neglect to register a child's birth may cause him great inconvenience in after years, and the neglect to register a death may hold up the settlement of an estate for a long period or keep a widow from reciving life insurance badly needed.

The new settler and the foreigner are not greatest offenders. The department has to state with reluctance that some of the busy physicians fail to report events as promptly as they should and frequently not at all. In the case of births the Act requires registration within a month, yet, because of the above conditions, allows registration within two years. This makes it impossible to give the final figures for any one

year at the close of the year.

New Appointments. During the year the usual number of resignations and appointments of registrars has taken place, with the result that the total number of registrars shows a slight increase over those of the preceding year.

BIRTHS

The total number of births recorded during the year was 9100, a slight increase over that of the previous year, which was 8813.

MARRIAGES

During the year 4410 marriages were solemnized as against 3630 for the previous year and 3086 for 1910. The mean marriage age for females for the year was 23.98 as against 23.84 for last year and of males 28.25 as against 28.46 the previous year. The records show that twenty-five brides were married under the age of sixteen and three over sixty years old, while no less than eleven bridgrooms were over sixty.

DEATHS

The death registrations received for the year numbered 4223 as against 3618 for 1911. Attention is again called to the serious infant mortality—1312 deaths being recorded under one year, which is equal to fifteen per cent of the births.

TOTAL REGISTRATIONS received of all Births, Marriages and Deaths for each respective month of the year 1912.

MONTH	BIRTHS	MARRIAGES	DEATHS
*			
January	874	251	314
February	840	418	278
March	926	233	399
April	822	340	360
May	887	329	320
June	868	476	323
July	791	395	423
August	904	368	498
September	898	392	386
October	854	411	338
November	799	412	298
December	821	404	289
Totals	10.284	4,429	4.232

Vital Statistics Returns, 1905 to 1912 (Inclusive)

YEAR	BIRTHS	MARRIAGE	S DEATHS	TOTAL.
			•	
905	421	187	114	722
906	3,033	927	1,091	5,051
907	4,732	1,907	1,578	8,217
908	5,973	2,032	2,188	10,193
909	6.897	2,384	2,662	11,943
910	8 231	3,086	3.526	14,843
911	8,813	3,630	3,618	16,061
912	10,284	4,429	4,232	18,945
Total	48,384	18,582	19,009	85,975

REGISTRATIONS received from Registrars throughout the respective Electoral Districts, 1912

Births by Electoral Districts

ELECTORAL DISTRICTS	MALE	FEMALE	TOTAL
Alexandra	117	93	210
Athabasca	56	60	116
Camrose	127	145	272
Cardston	76	67	142
Taresholm	78	79	157
Cochrane	39	37	76
Didsbury	75	77	152
Heichen	99	81	180
High River	50	57	107
Innisfail	48	51	99
Lacombe	16	11	27
Lac Ste. Anne	48	45	93
Leduc	89	72	161
Lethbridge	231	173	404
Macleod	40	43	83
Medicine Hat	315	283	598
Nanton	65	53	118
Okotoks	22	18	40
Olds	83	66	149
Pakan	239	257	496
Peace River	18	31	49
Pembina	32	24	56
Pincher Creek	47	46	93
Ponoka	27	30	57
Red Deer	89	76	165
Rocky Mountain	120	144	264
Sedgewick	198	193	391
St. Albert	121	92	213
Stettler	215	189	404
Stony Plain	54	5 9	113
Strathcona	138	123	261
Sturgeon	117	96	213
Vermilion	180	157	337
Vegreville	256	255	511
Victoria	122	121	243
Wetaskiwin	64	52	116
Calgary City	977	845	1,822
Edmonton City	513	504	1,017
Lethbridge City.	149	129	278
Totals	5,350	4,934	10,284

CAUSE OF DEATH	Under 1	1 to 4	5 to 14		20 to 41 a	2		Not Specified	Male	SEX	remain	Capada	United States	Scotland	Ireland	England		Germany Consideration of the C	Norway	AUSTRAL	Russia	Galicia	Others	Unknown	January	February	March	April	zertenik starteikanataren ilapanta sellan nakorra eterre setapa	MIN	ISt	September	October	November	December	Toron	
1.—General Diseases. 1. Typhoid Fever 2. Typhus Fever 3. Relapsing Fever 4. Malaria 4a. Including Malarial Cachexia 5. Smallpox 6. Measles 7. Scarlet Fever 8. Whooping Cough 9. Diphtheria and Croup 9a. Including Croup 10. Influenza 11. Miliary Fever 12. Asiatic Cholera 13. Cholera Nostras 14. Dysentry 15. Plague		. 1	7 28 48 2 1	355		33 11		33		1	52 1 24 35 19 37 38 8	37 50 38 74 5 13	3 10 8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3.11.2.5				2 1 1		a company order residence and a company of the comp		1	2226	83	1118339344	1 5 10 3 14	381	4 18 3 3	6 5 6 1		2 1 4	2	15	207 1 1 466 766 411 95 5 16 1 4 28	
16. Yellow Fever 17. Leprosy. 18. Erysipelas. 19. Other Epidemic Diseases. 20. Purulent Infection and Septicemia. 21. Glanders 22. Anthrax 23. Rabies. 24. Tetanus 25. Mycoses 26. Pellagra 27. Beriberi 28. Tuberculosis of the Lungs. 29. Acute Miliary Tuberculosis. 30. Tuberculosis Meningitis. 31. Abdominal Tuberculosis. 32. Pott's Disease. 33. White Swellings. 34. Tuberculosis of Other Organs.		2 2 3 6 1 1	1 15 7 3 2 1	52 4 2 3		1 1 25			4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 6 19 1 1 08 5 7 7		100	1		1	18		1	88	9		1	2 12	4	17	12 12 1 2	16	18 1 2 1	23	****	17 1	8 13	1 4 4 3 10 3 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12	27 2	7 7 7 29 1 1	
35. Disseminated Tuberculosis 36. Rickets 37. Syphilis (a) Primary (b) Secondary (c) Tertiary (d) Hereditary (e) Period not stated 38a. Soft Chancre 38b. Gonococus Infection 39. Cancer and other Malignant Tumors of the Buccal Cavity 40. Cancer and other Malignant Tumors of the Stomach, Liver 41. Cancer and other Malignant Tumors of the Peritonaeum, Intestines, Rectum 42. Cancer and other Malignant Tumors of the Female Genita Organs 43. Cancer and other Malignant Tumors of the Breast 44. Cancer and other Malignant Tumors of the Breast	al al	1	1	1	8 2 3	3 19 1 3 7	2 17 5 3	2866				19	1 1 1 2 9 8 3	5 3	2	1 6 3 4		4	1 5 1	2 3	1	2		2 1 1 2 2 2	1 1 1	3	1 8 2 1 4	3 1	1 5 2	1 1 4	5 1 1 1		2		1 1 1	1 1 1 7 533 188 133	3° 3 9 2
45. Cancer and other Malignant Tumors of other Organs and of Organs not Specified. 46. Other Tumors (Tumors of the Female Genital Organs excepted 47. Acute Articular Rheumatism. 48. Chronic Rheumatism and Gout. 49. Scurvy. 50. Diabetes 51. Exophthalmic Goitre. 52. Addison's Disease 53. Leuchaemia. 54. Anaemia Chlorosis. 55. Other General Diseases. 56. Alcoholism (Acute or Chronic). 57. Chronic Lead Poisoning. 58. Other Chronic Occupation Poisonings. 59. Other Chronic Poisonings.	ot d)	24	2 2 1 2 1 2 1 3 2	2 1 6 2	1	2 1 5 1 1 1 7 1 17	1	1 1	1	1 9 1 12 2 1 1 9 6 32 1 1 1	7	1	9 4 	6 1 1	1	2 2 2 3 10 1		i	1	1.	1	1			1 4 1 1 1 1 2 4	1 1 2 4	1 1 2	1 2 6 	4	3 1 1 2 5 1	3 3	2 1 3 2 1	4 2	3		2 12 4 2 7 7 2 1 1 1 3 2 1 1 1 1 1	4 5 7 7 2 6 3
60. Encephalitis 61. Simple Meningitis 61a. Including Cerebrospinal Fever 62. Locomotor Ataxia. 63. Other Diseases of the Spinal Cord. 64. Cerebral Hemorrhage. 65. Softening of the Brain 66. Paralysis without Specified Cause. 67. General Paralysis of the Insane. 68. Other Forms of Meutal Alienation. 69. Epilepsy 70. Convulsions (Non-Puerperal). 71. Convulsions of Infants. 72. Chorea. 73a. Hysteria. 73b. Neuralgia and Neuritis. 74. Other Diseases of the Nervous System. 75a. Follicular Conjunctivitis.		70	18		4 13 6 3 1 3 1 	14 5 3	2	1		2	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 2 15 2 2 2 2 2 2	6 1 8 1 1 3 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1	3 1	1 12 1 3 3	And the second s	3	3 2	1	1.	1	1	1	6 8 3 3 1 3 2		1 1 4 4 4 1 1 8	3 4 1	2 1 2 3 1 2 6 	2 1 7 3 1 2 1 8	8	2 5 1 2 1 10					5 8 3 2 6 6 7 6 6 2 8 8 1
75b. Trachoma. 76. Diseases of the Ears. III.—Diseases of the Circulatory System. 77. Pericariditis. 78. Acute Endocarditis. 79. Other Diseases of the Heart. 80. Angina Pectoris. 81. Diseases of the Arteries, Atheroma, Aneurysm, etc. 82. Embolism and Thrombosis. 83. Diseases of the Veins (Varicos, Haemorrhoids, Phlebitis, etc.) 84. Diseases of the Lymphatic System (Lymphangitis, etc.) 85. Hemorrhage, other Diseases of the Circulatory System. 1V.—Diseases of the Respiratory System.)	5 6	1		1 19 21 21 2 1 2 1 2	12 20 12 1 1	8 27 2 7 1	8. 12 1. 3. 1.	1 5	3 · · · · · · · · · · · · · · · · · · ·	30 43 1 6	33	3	16 14 1 4	55	83 18 11 22 11	3	1 3 1	3 4	1 3	2 3	2.3	1.	2 2 2	27714	7 48 61	22 5 5 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	37	6 7 4	\$ 4 5 1	1 . 6	4 15 1 2	9 4 7 9 1 4 1 2	6 13 1 2 1	6 9 2	3 3 55 56 56 56 57 3
88. Diseases of the Thyreoid Body. 89. Acute Bronchitis. 90. Chronic Bronchitis. 91. Broncho-Pneumonia 92. Pneumonia 93. Pleurisy. 94. Pulmonary Congestion, Pulmonary Appoplexy 95. Gangrene of the Lung. 96. Asthma. 97. Pulmonary Emphysema. 98. Other Diseases of the Respiratory System (Tuberculosis excepted). V.—Diseases of the Teeth and Gums. 99b. Other Diseases of the Mouth and Annexa.	ex-	17 144 57	36 40 1	1 3 3 2 23 1 3 4 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 1 1 46 3 1 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 2 21 1 3 6 1 1 1	3 2 2 13 1 	1 . 6 . 1 . 11 . 2 . 3		4	4	6 8 7 13 55 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	28 5 73 36 7 3	1	1	24 3 24 1	2 3	1 2	1	1 2 1 2	1 1 3 3 4	2		6	1	6 3 7 12 2 1 2 2 1	2 2 3 2 3 3 2 5 3 3 2 5 3 1 1	2 6 1 3 8 17 9 46 1 1	3 6 21 3	3 1 3 5 1	2 10 14 ··· 2 ··· 1 1 3	1 3 11	1 1 1 12 1 2 2 3	A.I. A	1 1 6 16 16 1	1 9 22 1	1 30 12 92 23 12 8 18 3 8
100. Diseases of the Pharynx. 101. Diseases of the Oesophagus. 102. Ulcer of the Stomach. 103. Other Diseases of the Stomach (Cancer excepted). 104. Diarrhoea and Enteritis (under two years). 105. Diarrhoea and Enteritis (two years and over). 106. Ankylostomiasis. 107. Intestinal Parasites. 108. Appendicitis and Typhlitis. 109. Hernias, Intestinal Obstructions. 110a. Diseases of the Anus and Faecal Fistulas. 110b. Other Diseases of the Intestines. 111. Acute Yellow Atrophy of the Liver. 112. Hydatid Tumor of the Liver. 113. Cirrhosis of the Liver. 114. Biliary Calculi. 115. Other Diseases of the Liver. 116. Diseases of the Spleen. 117. Simple Peritonitis (Non-Puerperal). 118. Other Diseases of the Digestive System (Cancer excepted).		20 220 1 9 7 1	2 38 15 4 1 2	6 18	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2 4 1 2 2 	2 2 1 2 1	1 2 5 1		6 20 150 16 39 23 10 6 1 5 1 22 1	110111111111111111111111111111111111111	4 3 8 5 	8 24 43 16 22 15 9	1	2 2	3 8 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 5 6 5 1 2	1	2	1	1 5 1	2 1	1	1	1	1 2 2 2 	11 2 2 2 2 1 1	1 2 2 3 4 4 5 6 3 1 1	2 3 4 5 5 2 1 2 1 1	7 4	5	5 8	3 5	1 5	7 2 3 	28	10 33 58 31 56 35 11 1 9 3 10 1 41
VI.—Non-Venereal Diseases of the Genito-Urinary System a Annexa. 119. Acute Nephritis. 120. Bright's Disease. 121. Chyluria. 122. Other Diseases of the Kidneys and Annexa. 123. Calculi of the Urinary Passages. 124. Diseases of the Bladder. 125. Diseases of the Urethra, Urinary Abscess, etc. 126. Diseases of the Prostate. 127. Non-Venereal Diseases of the Male Genital Organs. 128. Uterine Hemorrhage (Non-Puerperal). 129. Uterine Tumor (Non-Cancerous). 130a. Metritis	AND		1	1	1 22	16	2				1	18 3 2 2 2	3 2 1	11 2 1	1	1	1 2		1	1	4		1			8	1		1 2	. 1	1	1 2	1 -	2	1		2
131. Cysts and other Tumors of the Ovary. 132. Salpingitis and other Diseases of the Female Genital Organs 133. Non-Puerperal Diseases of the Breast (Cancer excepted) VII.—The Puerperal State. 134a. Normal Labour. 134b. Accidents of Pregnancy. 135. Puerperal Hemorrhage. 136. Other Accidents of Labour. 137. Puerperal Septicemia. 138. Puerperal Albuminuria and Convulsions. 139. Puerperal Phicgmasia Alba Dolens, Embolus, Sudden Death 140. Following Childbirth (not otherwise defined). 141. Puerperal Diseases of the Breast. VIII.—Diseases of the Sfin and of the Cellular Tissue. 142. Gangrone. 143. Furuncle	h	1		The second decrease of the second sec	5 10 2 2 5 6 13 4 1 1	1 9	1	4	2			11 15 111 12 19 16 9 2 2	5 5 4 4 10 4 	1	2	1	2		1	prid a military at the control of the primary of the control of th	1 2 1	1 2		1	1	4 2	1 description of the second of	1 2	1 1 1	1	2 1 1 2 1 3 4 2 2 	3 3	1 1 1 2 2 1	1 1 2 2	1 1 1 2 2 2	1	1 15 11 12 19 16 9 2
144. Acute Abscess 145a. Trichophytosis 145b. Scabies 145c. Other Diseases of the Skin and Annexa IX.—Diseases of the Bones and of the Organs of Locomotion. 146. Diseases of the Bones (Tuberculosis excepted) 147. Diseases of the Joints 148. Amputations 149. Other Diseases of the Organs of Locomotion. X.—Malformations 150. Congenital Malformations (Still-births not included) XI.—Diseases of Early Infancy. 151a. Nurslings discharged from Hospitals without Disease		96		1.		1	non-manufacha announterprenentation of the control			58	2	41	1 1 1 1 1 1 1 202				1				. 1					2	3	7	3	1 1 1	0 2	1 19	1	12	7	4	2 2 2 1 96
151b. Congenital Debility, Icterus and Slerema. 152. Other Diseases Peculiar to Early Infancy 153. Lack of Care. XII.—Old Age. 154. Senility. XIII.—Affections Produced by External Causes. 155. Suicide by Poison. 156. Suicide by Asphixia. 157. Suicide by Hanging or Strangulation. 158. Suicide by Howning. 159. Suicide by Firearms 160. Suicide by Cutting or Piercing Instruments. 161. Suicide by Jumping from High Place. 162. Other Suicides.		308 79 10		1		1 3 5 4	1 2	3 64		30	5	37	10	6 I amountaine de la company d	7	5	7		3		A suppression of the second se	To the state of th			2	4	3	5	A The second sec	6	5	Ji 9	3	1	12	7	79 10 73 2 1 8 10 5
164. Poisoning by Food. 165a. Venomous Bites and Stings. 165b. Other Acute Poisonings. 166. Conflagration. 167. Burns (Conflagration excepted). 168. Absorption of Deleterious Gases (Conflagration excepted). 169. Accidental Drowning. 170. Traumatism by Firearms. 171. Traumatism by Cutting or Piercing Instruments. 172. Traumatism by Fall. 173. Traumatism by Fall. 174. Traumatism by Machines. 175. Traumatism by Machines. 176. Injuries by Animals. 177a. Over-exertion. 177b. Starvation	slides,		3 3 8 8 6 6	2 2 4 1 6 6 6 1	5 1 2 4 6 6 1 2 2 1 1 12	5 3 4 4 14 14 12 27 27 2	1	1 1 1 1 1 1 1 1	1	1 3 2 1		1 2	77 66 66 15 77 11 11 22	7 8 5 5		2	7	1		3 1	1	22	1	2	1 1 1	2 5 2 1 3	1 1 1 4 4	2 1 3 1 1 1 2		3 1 4 2 2 3 1	11 2 2 4 3	6	6 4	1 2 1 9	1 2 4 5 1	2332112.4.1 32.1	17 12 20 13 34 32 1 18 8 5 5 5 11
178. Excessive Cold 179. Effects of Heat 180. Lightning 181. Electricity (Lightning excepted) 182. Homicide by Firearms. 183. Homicide by Cutting or Piercing Instruments. 184. Homicide by Other Meaus. 185a. Dislocations 185b. Sprains 185c. Fractures (Cause not Specified) 186. Other External Violence. XIV.—ILL-Defined Diseases. 187. Ill-Defined Organic Diseases. 188. Sudden Death 189a. Cause of Death not Specified or Ill-Defined 189b. No Disease, Feigned Disease.		55	13 2 13 2 13 6 13	33	1. 13. 5	1 1 15 16	8 4 3 11 12	1 2 10 9 1	The state of the s		2 2 1 2 1	1	98	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		3 8		1 2	1 . 1 . 1	1	1	2 1	1 2	5 2 6 3 2 4	7	41	4 1 1 15 22	6 6 1 1 10 57	3 1 16 1	5	2 9 1	6 2 3 3 3 8 9 9 3 374	9	1	-	2 1 3 1 2 45 36 2 13 127 123 1,002

REGISTRATIONS received from Registrars throughout the respective Electoral Districts, 1912

						MOI	NTH	s					:
BIRTHS BY ELECTORAL, DISTRICTS	January	February	March	April	May	June	July	August	September	October	November	December	Tota
Alexandra Athabasca Camrose Cardston Claresholm Cochrane Didsbury Gleichen High River Innisfail Lacombe Lac Ste Anne Leduc Lethbridge Macleod Medicine Hat Nanton Okotoks Olds Pakan Peace River Pembina Ponoka Pincher Creek ked Deer Rocky Mountain Sedgewick St. Albert Stettler Story Plain Stratheona Sturgeon Vermilion Vegreville Victoria	21 8 22 24 146 188 199 18 18 18 18 18	$ \begin{vmatrix} 13 & 10 & 16 & 6 & 6 & 6 & 6 & 2 & 12 & 13 & 41 & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 & $	20 13 35 14	29 12	18 12 24 15 7 20 17 10 6 3	188 198 199 153 134 154 154 154 154 154 154 154 154 155	199 198 100 88 111 70 106 68 88 44 55 713 14 166 66 60 107 222 200 300 314 211 144 144 747	1227 166 88 177 1 1 1 2 2 2 3 1 1 2 2 2 3 1 3 1 3 1 3 1	16 9 24 11 12 6 9	199 6 244 166 100 33 144 244 177 8 2 2 122 132 144 165 165 165 165 165 165 165 165 165 165	9 8 15 133 13 11 33 77 17 17 17 322 8 8 38 10 4 4 4 4 7 7 4 4 122 23 36 3	166 77 133 155 15 16 16 16 16 16 17 17 17 17 17 17 17 17 17 17 17 17 17	116 272 143 157 76
Wetaskiwin Calgary City Edmonton City Lethbridge City	$10 \\ 140 \\ 83 \\ 22$	$19 \\ 135 \\ 84 \\ 25$	$5 \\ 158 \\ 76 \\ 28$	$ \begin{array}{r} 9 \\ 118 \\ 65 \\ 20 \end{array} $	$ \begin{array}{r} 8 \\ 145 \\ 83 \\ 20 \end{array} $	10 149 94 31	9 139 79 17	13 173 103 21	$7 \\ 151 \\ 112 \\ 25$	$11 \\ 140 \\ 72 \\ 24$	$\begin{array}{c} 8 \\ 177 \\ 76 \\ 29 \end{array}$	7 197 90 16	116 1,822 1,017 278

 ${\bf REGISTRATIONS} \ \ {\bf received} \ \ {\bf from} \ \ {\bf Registrars} \ \ {\bf throughout} \ \ {\bf the} \ \ {\bf respective} \ \ {\bf Electoral}$ Districts, 1912

	Districts, 1012	
	MONTHS	
DEATHS BY ELECTORAL DISTRICTS	January February March April May June July August September October November December	'otal
Alexandra Athabasca Camrose Cardston Claresholm Cochrane Didsbury Gleichen High River Innisfail Lacombe Lac Ste. Anne Leduc Lethbridge Macleod Medicine Hat Nanton. Okotoks Olds Pakan Peace River Pembina Pincher Creek Ponoka Red Deer Rocky Mountain Sedgewick St. Albert Stettler Stony Plain Strathcona Sturgeon Vermilion Vegreville Victoria Wetaskiwin Calgary City Edmonton City Lethbridge Cochrane Cochrane Cardstone Cardstone Ca	11 8 8 7 6 9 9 6 6 5 11 3 1 5 3 2 7 4 6 5 6 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 6 5 6 5 6 5 6 5 6 5 6 7 7 7 7 7 7 4 4 4 1 1 1 3 9 9 5 5 3 4 9 5 3 3 3 1 3 4 9 5 3 3 3 5 6 11 1 <t< td=""><td>89 39 79 34 59 15 57 29 9 35 6 40 243 3 5 41 29 45 8 106 128 94 47 541 72 57 1,042 6197</td></t<>	89 39 79 34 59 15 57 29 9 35 6 40 243 3 5 41 29 45 8 106 128 94 47 541 72 57 1,042 6197
Tota ¹	$314 \ 278 \ 399 \ 360 \ 320 \ 323 \ 429 \ 498 \ 386 \ 338 \ 298 \ 289$	4,232

CERTIFIED EXTRACTS, SEARCHES AND ALTHORITIES TO REGISTER, 1912.

³³¹ Certified Extracts.
72 Authorities to Register.
31 Searches of Records.

MARRIAGES BY DENOMINATIONS AND AGES...FLECTORAL DISTRICTS, 1912

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M ARRIAGES BY DENOMINATIONS AND AGES.-ELECTORAL DISTRICTS, 1912-Continued

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MARRIAGES BY DENOMINATIONS AND AGES-ELECTORIAL, DISTRICTS, 1912-Continued

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MARRIAGES BY DENOMINATIONS AND AGES-ELECTORAL, DISTRICTS, 1912-Continued

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MARRIAGES-Religious Denominations of Contracting Parties

OMS	Hyangelical R'f'd. Mennonite Salvation Army ('ongregationalist Gr. Ortho & Ind. Hebrews Tili Day Adventists Others	2 9 1 1 16 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OMS	Mennonite Salvation Army ('ongregationalist Gr. Ortho & Ind. Hebrews Till Day Adventists	3 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0 8 0
OMS	Mennonite Salvation Army ('ongregationalist Gr. Ortho & Ind. Hebrews	3 9 48 24 12 12 13 10 8 24 12 12 12 12 12 12 12 12 12 12 12 12 12
OMS	Mennonite Salvation Army ('ongregationalist Gr. Ortho & Ind.	3 0 8 3 10 8 3 10 8 3 10 8 3 10 8 3 10 8 3 10 8 3 10 8 3 10 8 3 10 10 10 10 10 10 10 10 10 10 10 10 10
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	Baptist	2477 2477 1121 1122 1122 1123 1123 1123 1123 11
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	Roman Catholic	222 220 221 26 16 16 16 16 16 16 16 16 16 16 16 16 16
	пвэйдик	102 2513 252 253 253 253 253 253 254 254 255 254 255 255 255 255 255 255
	Methodist	100 100 100 100 100 100 100 100 100 100
	пвітыудаютЧ	54.9 103 330 330 330 330 330 10 10 11 12 12 13 13 13 13 13 13 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
	читьтыйО С Четкулиел С Четкулием Тока I Вrides Мина I Вrides	1,128, 851 Presbyterians 1,070, 773 Methodists 750, 844 Anglicans 705, 790 Roman Catholics 243, 414 Lutherans 243, 414 Lutherans 274, 272 Baptists 8, 67 Latter Day Saints 12, 8 Moravians 24, 67 Latter Day Saints 12, 8 Moravians 24, Mennomie 1 13 Salvation Army 9 52 Greek Orthodox and Independent 9 12 Hebrew

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MARRIAGES—Origin of Contracting Parties

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		н	nglish Cot	Spe Intri	akin es	g					Otl	nei	rs				
	BRIDES	Canada	United Kingdom	United States	Other British Colonies	Totals	Germany	Russia	Austria	Norway & Sweden	France	Italian	Galician	Belgium	Danish	Others	Totals
English Speaking Countries	Canada United Kingdom United States Other British	763 1,190 256- 4	191 906 121 8	207 121 588 2	6 19 5 2	1,167 1,236 970 16	6 9 15	9 4 13	8 3 1	6 7 34	3 2 3	1		3	2 4 6	6 .	1,210 1,266 1,050
	Total .	1,213	1.226	918	32	3,389	30	26	12	47	8	1		4	12	14 .	. 3,543
Others	Germany Russia Austria Norway and Sweden France Italian Galician Belgium Danish Others Not Stated	8 7 6 3 6 3 1	2 3 1 12 1 2 1 4 2	12 19 4 31 1		22 29 11 46 7 3 4 5 12 4	26 15 2	1 109 6 1	2 3 316	2 1 74 	2 1 5	1 2 27	87 			2	57 157 341 123 17 31 93 12 14 33 3
	Totals	1,254	1,254	992	32	3,532	73	147	336	124	16	32	92	12	22	40	3 4,429

DENOMINATIONS OF OFFICIATING CLERGYMEN

Don't had a day	1 +00
Presbyterian	1,128
Methodist	1,070
Anglican	750
Roman Catholic	705
Lutheran	243
Baptist	274
Greek Catholic	
Latter Day Saints	
Evangelical Reformed	
Seventh Day Adventists	
Moravian	12
Mennonite	
Salvation Army	1
Congregationalist	
Greek Orthodox and Independent	
Hebrews	9
Others	47
Not Stated	9
Total	4.410

MEAN MARRIAGE AGE

Year	Male	Female	Year	Male	Female
1901	28.78	22.42	1907	27.45	23.98
1902	27.10	22.88	1908	30 23	24.19
1903	28.31	22.98	1909	28.94	24.22
1904	28.53	23.41	1910	28.72	24.18
1905	28.34	23.06	1911	28.46	23.84
1906	28.82	22.59	1912	28.25	23.98

BIRTHS and RATIO OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 births of Fema'es	Ratio of Births to Deaths	Year	Births of Males to 1,000 births of Females	Ratio of Births to Deaths
1901	1,081	3,55	1907	1,075	2.96
1902	1,010	2.59	1908	1,077	2.73
1903	1,056	2.95	1909	1,086	2.59
1904	1,118	3.04	1910	1,065	2.69
1905	1,059	3.11	1911	1,103	2.43
1906 -	1,094	2.07	1912	1.084	2.43

DEATH OF INFANTS UNDER ONE YEAR

 To 1,000 births, 1912
 124.75

 To 1,000 deaths from all causes, 1912
 303.16

R EGISTRATIONS received from Registrars throughout the respective Electoral Districts, 1912

DEATHS BY ELECT	ORAL, DIS	TRICTS			ER ONE EAR
Electoral Districts	Male	Fem : le	Total	Male	Female
Alexandra	44	45	89	14	10
Athabasca	23	16	39	8	6
Camrose	48	31	79	18	9
Cardston	18	16	34	5	6
Claresholm	40	19	59	14	5
Cochrane	6	9	15	1	1
Didsbury	32	26	58	8	3
Gleichen	43	14	57	9	8
High River	28	22	50	11	4
Innisfail	20	9	29	8	3
Lacombe	3	6	9		2
Lac Ste Anne	28	7	35	9	
Leduc	17	19	26	10	5
Lethbridge	50	26	76	$\overline{16}$	14
Macleod	31	9	.40	4	3
Medicine Hat	159	90	249	60	29
Nanton	16	17	33	4	3
Okotoks	$\frac{1}{2}$	13	5	î	1
Olds	$2\overline{7}$	14	41	ĝ	2
Pakan	74	78	152	32	$2\overline{7}$
Peace River	$\hat{5}$	6	11		i
Pembina	7	ě	13	i	3
Pincher Creek	18	11	$\overline{29}$	$\hat{f 2}$	3
Ponoka	31	14	45	$ ilde{ ilde{8}}$	
Red Deer	• 41	37	78	6	5
Rocky Mountain.	71	35	106	12	12
Sedgewick	68	50	118	13	20
St. Albert	37	23	60	13	8
Stettler	$\frac{37}{72}$	54	126	17	14
Stony Plain	15	13	28	8	6
Strathcona	50	44	94	13	13
Sturgeon	35	12	47	14	4
Vermilion	28	26	54	18	9
	102	79	181	37	26
Vegreville	36	36	$\frac{181}{72}$	15	$\frac{20}{12}$
	37	20	57	13	3
	621	421	1.042	161	147
Calgary City		257	689	$\frac{161}{115}$	86
Edmonton City	432			31	33
Letinoriage City	121	76	197	•51	- 66
Total	2,536	1,696	4,232	737	546

IV.---MISCELLANEOUS

Under this heading is grouped comments on a number of subjects of more or less importance.

IRRIGATION

Each year the place that irrigation is to serve in this Province is becoming more clearly defined. It can never be used on an extensive scale for growing grain and must therefore be associated with some kind of intensive farm operation. In the Lethbridge district the succcssful growth of Alfalfa is closely identified with irrigation. It is estimated that over 10,000 acres of Alfalfa are growing in the district tributary to Lethbridge. A very large percentage of the area is on irrigated land and by the use of water immediately after cutting three good growths are harvested averaging from five to seven tons per acre. It can thus be readily seen that any land capable of being irrigated has possibilities along intensive lines of farming that the ordinary land does not possess. The right use of water in our comparatively cool elimate is still an unsettled problem. Many farmers are now inclined to the belief that were the water turned on the land late in the fall and then the land cultivated along the lines recommended for dry farming, that the best results would be attained, especially for grain. In accordance with this idea the irrigation companies were asked to allow the water to remain in the ditches for a later period than they had in the past. This request was refused on the ground that were the water to be left any later it would freeze in the ditch and possibly do damage to the embankments, besides delaying the use of the water in the early spring. This is a matter which the irrigation companies will no doubt test out in order to ascertain which is really the better way.

The annual meeting of the Western Canada Irrigation Association was held in Kelowna, B. C. The department was represented by the Deputy Minister and quite a large attendance of those interested in irrigation in the province were present. The meeting was a very successful one, a trip was made through the country surrounding Kelowna and the convention closed with an excursion trip down the lake, and ended with a banquet at Penticton. The next convention will be held in Lethbridge.

DRY FARMING CONGRESS

Immediately upon the close of the congress at Colorado Springs in October, 1911, the staff of the International Dry-Farming Congress moved to Alberta with Lethbridge as its headquarters. From this point all the literature of the congress was issued for the year. The department was in close touch with the work of the congress throughout, rendering every assistance possible. The Chief Publicity Commissioner and the Deputy Minister, as well as yourself, sir, each made special trips to different groups of states in the country south of the boundary in the interest of the congress. Thus on the whole the officers of the department devoted considerable of their time to the interest of the congress in order that it might be a great success and the province might obtain as large amount of publicity as possible. As a result of this work in conjunction with that of the publicity branch of the congress, Alberta was well advertised. News items about the varied natural re-

sources of the province, its climate and the many opportunities it offers to intending settlers, were sent in connection with news items about the congress to agricultural papers throughout Canada, the United States and the other English speaking nations, to semi-agricultural papers and to general weeklies. Much of this appeared in print and on the whole the province has every reason to be satisfied with the publicity obtained through this means.

The work of the congress was liberally supported by the Dominion Government as well as that of our sister provinces, Saskatchewan and British Columbia. The railway companies also made very liberal contributions. In this way the congress was well financed. The good people of Lethbridge went to no end of expense to make their city as presentable as possible and admirably succeeded in their efforts. For so small a place to entertain so large a convention was somewhat of a task as there was a great dearth of good hotel accommodation. This was met by the citizens throwing open their homes and every delegate was well provided for through the means of a billeting committee.

The attendance at the congress was the largest ever brought together at any agricultural convention ever held on the continent. The attendance of farmers from Alberta, Saskatchewan, Manitoba and British Columbia was large, but the number of delegates in attendance from across the line to the south of us was most disappointing. This was due to the fact that the railway companies refused to grant adequate rates and so curtailed the time allowance that it made it very difficult for many to attend and impossible for any one to take the opportunity of sceing anything of the province. This no doubt was done with a view to preventing any large number of farmers having an opportunity of seeing Canada. Such a policy is in keeping with the general antagonistic attitude of the railway companies and the governments generally toward the movement of American farmers to Canada. Such an attitude is only natural as these railway companies are looking for settlers for their extensive land grants and so is the government of every state.

In spite of these untoward conditions the congress brought together the largest gathering of agricultural experts and farmers from all over the world. Some fifteen foreign countries were represented by delegates.

The exposition of dry farmed products in connection with the congress proved a great success, being by far the largest exhibit yet shown and really assumed the proportions of a miniature world's fair. So splendid and varied were the exhibits that the exposition became a counter attraction to the regular sessions of the congress. An excellent exhibit of the agricultural products of the province was made at the exposition of dry farmed products made under the direction of the Chief Publicity Commissioner and though barred from competing, this exhibit was voted by all who saw it, the best exhibit on the grounds.

CHANGES IN STAFF.

A number of minor changes in the staff of the department have as usual, taken place, as will always be the case through clerks resigning and new ones taking their place. Dr. L. E. W. Irving, Provincial Medical Officer of Health, resigned and was succeeded by Dr. W. C. Laidlaw. Toward the close of the year the work of the Poultry Branch was enlarged by the addition of Mr. Joseph Shackleton as manager of the Poultry Breeding Station.

In conclusion I wish to state that the thanks of the department are due to the press of the province for their readiness to publish any information furnished and for their willingness to assist whenever it lay in their power, the work that the department had in hand.

I have the honour to be, Sir,

Your obedient servant,

GEO. HARCOURT,
Deputy Minister of Agriculture.

2.—REPORT OF THE DAIRY COMMISSIONER.

SIR,—I have the honour to submit herewith the report of the Dairy Commissioner's Branch for the year ending December 31, 1912, under the following heads:

I.—General.

II.—Creamcries and Cheese Factories.

III.—Marketing of Creamery Butter by the department.

IV.—Educational Butter Scoring Contest.

V.—Commercial Grading of Creamery Butter.

VI.—Convention of Creamery Delegates.

VII.—Judging at Agricultural Exhibitions.

VIII.—Dairy Instruction Work.

IX.—Public Meetings.

X.—Correspondence.

XI.—Acknowledgements.

I.—GENERAL.

The past year was a good one for the dairymen. The dairy production of the province was larger than that of any previous year and the markets were very encouraging with a ready demand and good prices. Some of the more prominent features of the past year's dairy operations are outlined in the following paragraphs.

MARKETS.

The western market for dairy products is expanding at an astonishing rate. In addition to the home production, the consumers of the western provinces "absorbed" large quantities of butter and cheese shipped in from other parts of Canada and even from New Zealand. The growth of the western market during the past ten years is well illustrated in a statement, recently made by Mr. J. A. Ruddick, Dominion Dairy and Cold Storage Commissioner, in the course of his analysis of the general dairy situation of the Dominion. He said: "During the period when the creameries in Alberta and Saskatchewan were operated by the Dominion Government, it was a part of my duty to find a market for butter produced therein. In 1903 the total output of creamery butter in

these provinces was less than three-quarters of a million pounds. At that time there was no butter being shipped to the western provinces from Eastern Canada, and yet we found it necessary to export over 100,000 pounds to Great Britain to avoid a serious glut in the British Columbia and prairie markets."

Now contrast that state of affairs with the past year. In the first place, Alberta and Saskatchewan produced about four million pounds of creamery butter in 1912; at least 200,000 boxes or 11,200,000 pounds were shipped from Ontario and Quebec to points west of the great lakes, 100,000 boxes or 5,600,000 pounds will be imported from New Zealand (April, 1912, to March, 1913) making a total of 20,000,000 pounds in 1912-13 as against half a million pounds which met the requirements in 1903-04. These figures refer to creamery butter only, but there has also been a very large increase in the output of dairy butter in the western provinces, most of which is consumed locally.

In order that our dairymen and creamery operators may realize and appreciate the nature of the competition they are up against, I quote a prominent wholesale produce merchant from Montreal who stated last year publicly and through the press, that the shippers in eastern Canada now send their best quality of creamery butter to the western markets, whereas formerly their western shipments were generally lower grades while the best quality was used for export to Great Britain.

So far as the New Zealand product is concerned, we know that the creamery butter which is being imported from that country into western Canada is of uniformally fine grade. There is therefore but one thing for the western producer to do if he wants to successfully cater to the trade in his home markets that demand the best products obtainable, and that thing is to produce the best.

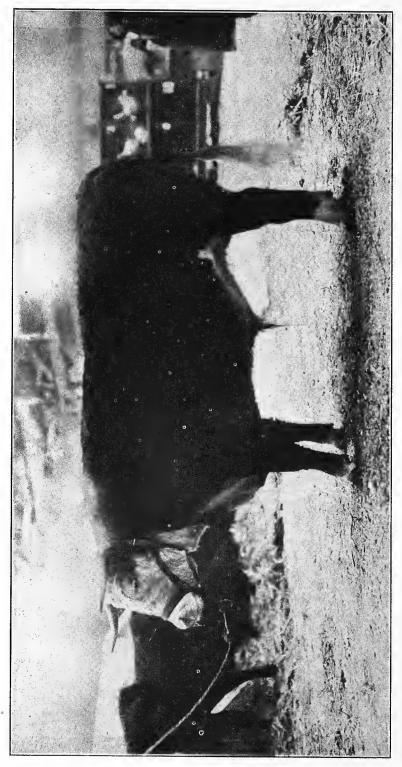
DAIRY STOCK.

The demand for dairy cows has been greater than ever during the past year. While it is difficult to get the exact figures I think we are well within the mark in saying that at least 5,000 dairy cows and heifers have been brought into the province since the beginning of the year. Many of these have been bought by farmers in the central and southern part of the province.

It is to be hoped that this dcmand, which will undoubtedly increase, will bring with it a realization on the part of the sellers in other parts of Canada and the "middle man" that the western market calls for good animals, not culls. Those who bring dairy stock into Alberta to meet this growing demand will be well advised to bear this in mind.

During the period under review the dairy branch has supervised the testing of pure bred dairy cows for record of performance. The following summary shows the increase in that work:

	19	11	19	12
Breeds under test	Herds	Cows	Herds	Cows
Jerseys	1	19	2	15
Ayrshires	1	5	3	24
Holstein Friesian	1	2	3	14
Totals	, 3	26	8	53



No. 3.—Champion Fat Steer, at the Fat Stock Show, Calbary, 1912.

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Some of the animals in this test made splendid records. A rather unique and fitting celebration took place in Red Deer in the evening of Oct. 16th, when the Red Deer board of trade gave a very elaborate and exceedingly well attended banquet in honor of Mr. C. A. J. Sharman, the owner of the splendid Jersey cow "Rosalind of Old Basing" that is now claimed to be the 'long distance performer' champion of her breed in the British Empire. In three years she produced 37,847 pounds of milk, yielding 2,504 pounds of butter. Many leading stock breeders and agriculturists from different parts of the province were in attendance to do honour to the occasion.

CREAMERY BUTTER PRODUCTION.

The butter production of the 53 creameries operated during the year reached the 3,000,000 pound mark, representing a selling value of \$810,000 as against 2,540,000 pounds valued at \$635,000 for the previous year. This shows an increase of 18% in production and 27½% in value. The average selling price for creamery butter for 1912 was 2 cents per pound higher than in 1911. This is a very satisfactory showing when we consider that the increased population of the province has required a much greater quantity of milk and cream than ever before for table use.

CHEESE PRODUCTION.

The business of the cheese factories showed a marked decline in that only 20 tons of cheese was made representing a value of \$5,600 as against 50 tons worth \$14,000 for 1911. There is not likely to be any general expansion in the cheese industry before the ... atry is more thickly populated and the dairy herds larger than at present.

HOMOGENIZED MILK.

A new branch of the dairy industry was started during the year when the Laurentia Milk Company of Alberta, Ltd., started three factories for the production of homogenized milk at Red Deer, Bowden and Olds.

II.—CREAMERIES AND CHEESE FACTORIES.

Following are lists of the creameries and cheese factories operated in the province during 1912, showing location and the name and address of the secretary or proprietor of each:

CREAMERIES OPERATED IN ALBERTA 1912.

	Name of Creamery	Secretary or Proprietor	P. O. Address
1.	Bawlf	J. E. Hansen	Bawlf.
2.	O. K. Creamery	O. K. Creamery Co	Morningside.
3.	Beaver Lake Farmers' Creamery Association.	J. S. Kavanaugh	Ryley,
4.	Duvernay Creamery Association	F. N. Therrien	Duvernay.
5.	Laurentia Milk Co. of Alberta, Limited	W. Hamilton	Olds.
6.	Innisfail Union B. & C.		1
7.	Markerville Creamery		

DEPARTMENT OF AGRICULTURE

CREAMERIES OPERATED IN ALBERTA 1912.—Continued.

	Name of Creamery	Secretary or Proprietor	P. O. Address
8.	Red Deer B. & C. Mf'g. Assoclation	E. Carswell	Red Deer.
9.	Viking Co-operative Creamery Association.	Chas. H. Councilman	Vlking.
10.	Daysland Creamery AssociationLakeview Creamery As-	W. W. MacGregor	Daysland.
11.	sociation	Donald Cameron	1
12.	Neapolis	A. T. Prout.	
13. 14.	Ferintosh	The Laurentia Milk Co. of	
15.	Wild Rose		Bowden. Ponoka.
16.	Bentley	J. F. Millar	Bentley.
17.	Golden Rose	The J. Harris Co	Camrose.
18.	Lakeside	The Leduc Produce Co	Leduc.
1.9.	Mayton	J. H. Cameron	Mayton
20.	Knee Hill	W. T. Nelson	Sunnyslope.
21.	Carhon	Blois & Davies.	Carbon
22.	Davidan	T. Theodoli	Trochu.
23.	Mosting Crock	A. Skalleberg & Co	
	Die Tales	Frank T. Edwards	Meeting Creek.
24.			Pine Lake.
25 .	Laurentia Milk Co. of		
	Alberta, Ltd	T. B. Millar	Red Deer.
26.	Clover Hill	R. LeBlanc	Dldsbury.
27.	Pincher Creek	McKerrlcker Bros	Pincher Creek.
28.	Red Lodge	Colin Thomson	Red Lodge.
29.	Edmonton City Dairy	Edmonton City Dairy, Ltd	Edmonton.
30.	Lllly Bank	J. E. Cunningham	Vegreville.
31.	Lacombe	G. A. Anderson	Lacombe.
32.		The J. Harris Co	Camrose.
33.	Quarrel	John A. Brown	Quarrel.
34.	Elleton	John A. Brown	Elkton.
35.	Plack Diamond	Buckler & Gilson	
36.	Colcory Control Cream'y	P. Pallesen	Black Diamond.
	Caigary Central Cream y	Tidmonton City Dollar Tell	
37.	Wetaskiwiii	Edmonton City Dalry, Ltd	Wetaskiwin.
38.	Morinville	Neo. Beaupre	Morlnvllle.
39 .	The Carlyle Dairy Co	Carlyle Bros	Calgary.
40 .		W. B. Podmore	Edmonton.
41.		W. N. Morley	Cllve.
42.	The Cardston Creamery		
	Association	D. S. Beach	Cardston.
43.	Riviere Qui Barre	Jos. Poirier	St. Paul des Metis
44.	St. Paul des Metis	O. Massicotte	Rlviere Qui Barre
45.	The High River Cream-	Geo. W. Young	_
46.	The Claresholm Cream-	Carl J. Braren	Claresholm.
47.	The Macleod Creamery Association	A. G. Stanway	Macleod.
48.	The Nanton Creamery	Wm. Robertson	Nanton.
49.	Seven Persons Creamery		216H00H,
50.	Association	A. J. Stockman	Seven Persons.
51.	sociation	1	Cochrane.
52.	sociation The Sedgewick Cream-	J. T. Johnston	
5 3 .	ery Co	Ira Joy	T
	Farm	W. J. Elllott.	Strathmore.

		1
Factory	Proprietor	P. O. Address.
Eckville	The Laurentia Milk Co. of Alberta, Limited T. B. Millar, Gen. Mgr Henry Poulin	Red Deer.
Kunsamo	T. B. Millar, Gen. Mgr	
Vegreville	Henry Poulin	Vegreville.
Sturgeon River	Napolean Auclair	Lamoureux.
Erskine	Napolean Auclair Erskine Butter & Cheese Co.	Erskine.
St. Paul des Metis	O. Massicotte	St. Paul des Metis

A comparison of the foregoing lists with those given in my report for 1911 will reveal the fact that eleven (11) creameries did not open, while seven (7) new ones commenced operation in the spring of 1912 and one (1) re-opened after a year's rest.

Two of the cheese factorics were unable to re-open owing to lack of

milk supply.

In view of the fact that the creamery butter output for the year was 18% greater than that for the preceding twelve months, it may look somewhat eurious that as many as eleven creameries—six of which were

co-operative—should be unable to re-open last spring.

The reason is to be sought, however, mainly in the changing conditions of our markets. By reason of favourable shipping facilities, many of our largest and most progressive dairymen were able to take advantage of the attractive prices offered by the central dairies that supply the rapidly growing demand for milk and sweet cream in our larger centres of population. They withdrew their patronage from the local ereameries and left them in several cases badly crippled and unable to continue in business.

III.—MARKETING OF CREAMERY BUTTER BY THE DEPARTMENT.

While the department has discontinued the local management and operation of creameries, which was a prominent feature of the work of the dairy branch for a number of years, the marketing service has been continued and is available to any creamery in the province. The record of cream supply, butter output and its selling price, etc., of the "Government Creameries" up to the end of the summer season 1911 will be found in the annual report of the department for that year.

Table I. following shows the quantity of butter marketed through the department's cold storage warehouse at Calgary for the winter season 1911-12, and Table II. is a record of the sales for the summer season

1912.

TABLE	I.—SUMMARY	\mathbf{OF}	BUTTER	SALES—WINTER	SEASON,	1911-12.
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Creamery	Pounds of butter shipped	Value at Creamery	Average price at Creamery
		-	cents
Innisfail	1,500	\$ 427.15	28.48
Markerville	2,450	697.69	28.48
Ferry Bank	400	113.91	28.48
Ryley	500	142.39	28.48
Viking	2,850	811.59	28.48
Daysland	1.750	498.35	28.48
Spring Lake	609	173.42	28.48
Neapolis	2,632	749.52	28.48
Total and average	12,691	3,614.02	28.48

TABLE II.—Summary of Butter Sales—Summer Season, 1912.

	Pounds of	Value	Average price
Creamery or Shipper	butter	at	of butter at
	sold	Creamery	Creamery
	,		cents
Nanton Creamery Association	9.400	\$2,441.21	25.97
Claresholm Creamery Association.	12,080	3,391.85	28.08
D. Morkeberg, Innlsfail	20,280	5,608.53	27.65
D. Morkeberg, Markerville	41,368	11,579.10	27.99
Red Deer B. & C. Mf'g. Assoc	33,130	9,285.35	28.03
John A. Brown, Quarrel	14,384	4,062.74	28.24
Sedgewick Creamery Co	7,460	1,810.81	24.27
Cochrane Creamery Association.	13,950	3,809.60	27.31
Beaver Lake Farmers' Creamery	24.770	6.802.14	27.46
Association, Ryley		,	1
Viking Co-operative Creamery Ass.	31,728	8,899.79	28.05
R. H. McNair, Elkton	6,300	1,725.49	27.39
A. Skalleberg & Co., Meeting Creek	11,830	3,033.74	25.64
Daysland Creamery Association.	4,169	1,096.19	26.29
Lakeview Creamery Association.	20,822	5,251.06	25.22
A. T. Prout, Neapolis	4,326	1,080.16	24.97
Totals and average	255,997	69,877.76	27.29

I should add with regard to Table II. that the quantities sold for each creamery does not represent the whole season's make at these points. Some of the ereameries made only occasional shipments and others, while shipping to the government cold storage throughout the season, sold locally a considerable proportion of their total make. While the average selling price for the summer season was 27.29 cents per pound of butter at the creameries, the individual prices vary from 28.24 cents to 24.27 cents per pound. The higher prices were realized by creameries that made first class butter and made regular shipments throughout the season. The lower prices were received by creameries that shipped but occasionally when the market price was lowest.

when the market price was lowest.

The grade of the butter had also a good deal to do with the variations in the price, in view of the fact that all butter was marketed on the basis of quality.

AGREEMENTS IN MARKETING OF BUTTER.

Following is the text of the agreements entered into between the department and the creameries covering the marketing of butter through

the government cold storage. Agreement No. 1 was for creamery associations who had not yet completed the repayment of their loans from the department. No. 2 is used for associations not indebted to the government, and No. 3 for individually operated creameries. It will be noted that the quality principle is made a strong part of the marketing agreement under section No. 1.

(Agreement No. 1.)

MEMORANDUM OF AGREEMENT.

BETWEEN:

THE DAIRY COMMISSIONER, ACTING FOR THE DEPARTMENT OF AGRICULTURE FOR THE PROVINCE OF ALBERTA

and

THE CREAMERY ASSOCIATION, HEREINAFTER CALLED THE ASSOCIATION.

1. The Dairy Commissioner agrees, for the period of one year from April 1, 1912, to market the butter shipped to him by the association for that purpose to the best of his judgment and ability and to pay the association the net proceeds realized from the sales of such butter after deducting:

The average cost of railway freight paid on all butter shipped

- to him for marketing at Calgary or other point in Alberta. The cost of packages and other supplies (a) furnished by him to the said association for use in the creamery, or (b) used at the grading station in re-packing butter.
- The pro rata cost of handling the butter in cold storage at Calgary or other point until it is finally disposed of.
- Any financial loss incurred on account of short weight of, or mold in or on butter so received and marketed.
- The charge of one cent per pound of butter manufactured to be applied as follows:
- On the repayment of any loan heretofore obtained by the association from the government.
- In payment of plant and equipment supplied or which heretofore may have been supplied and installed by the government the property in which said plant and equipment is to remain in the government till it is paid for.
- A further charge to be applied:
- Towards the payment of an annual rental for the plant and equipment furnished or heretofore furnished by the government reckoned at the rate of three per cent, of such portion of the cost of the plant and equipment as is unpaid, such rental to be computed on the first day of January following the year in which such plant and equipment or any portion thereof is installed, and on each first day of January subsequent thereto (or subsequent to the year in which such plant and equipment has been installed if it has been installed prior to the date hereof) but no deduction shall be made from such rental by reason of the receipt of the whole or any part of the purchase price of such plant and equipment before the end of the year in which the rental is so computed.
- Towards the payment of the interest upon loans made by the government upon mortgage security or otherwise.

2. The Dairy Commissioner agrees to grade and classify according to its marketable quality all the butter received by him for disposal during the season of 1912, to pay a premlum of two (2) cents per pound on all butter graded as "firsts" and to maintain a uniform standard for grading.

3. The Dairy Commissioner agrees to pay the said association on each shipment of butter received by him from the said association such advances as he may estimate to be about eighty (80) per cent, of its selling value, and to pay the balance due on such sales after the season's butter has been disposed of

- 4. The Dairy Commissioner agrees to insure the butter against loss by fire only while contained in the cold storage building at Calgary as trustees for and on behalf of the association to the amount of two-thirds of its estimated market value.
- 5. The association agrees to employ a properly qualified buttermaker, approved by the Dairy Commissioner, and to accept and carry into effect such directions as the Dairy Commissioner may give from time to time respecting the details of the manufacturing, the packing and the shipping of the butter to be sold by him.
- 6. The association agrees to use no packages and packing material bearing "Provincial Government Creameries" brand except for creamery butter which is shipped to the Dairy Commissioner or order.
- 7. The association agrees that all butter shipped by it to the Dairy Commissioner grading below "Seconds" is to be packed and sold in plain packages and any re-packing that may be found necessary at the grading station is to be done at the association's expense.

Dated at	this
Witness:	President of the Association.
Witness:	Secretary of the Association.
Witness:	Dairy Commissioner.

(Agreement No. 2.)

MEMORANDUM OF AGREEMENT.

BETWEEN:

THE DAIRY COMMISSIONER, ACTING FOR THE DEPARTMENT OF AGRICULTURE FOR THE PROVINCE OF ALBERTA

and

..... OFALBERTA, HEREINAFTER CALLED

* THE ASSOCIATION.

1. The Dairy Commissioner agrees for the period of one year from April 1, 1912, to market the butter received by him from the association for that purpose to the best of his judgment and ability and to pay the association the net proceeds realized from the sales of such butter after deducting:

(1) The average cost of railway freight pald on all butter shipped to him for marketlng at Calgary or other points ln Alberta.

(2) The cost of packages and other supplies (a) furnished by him to the sald association for use in the creamery, or (b) used at the grading station in re-packing butter.

(3) The pro rata cost of handling the butter in cold storage at Calgary or other point until it is finally disposed of.
(4) Any financial loss incurred on account of short weight of or

any mancial loss incurred on account of short weight of o mold in or on butter so received and marketed.

2. The Dairy Commissioner agrees to grade and classify according to its marketable quality all the butter received by him for disposal during the season of 1912, to pay a premium of two (2) cents per pound on all butter graded as "Firsts" and to maintain a uniform standard for grading.

3. The Dairy Commissioner agrees to pay the association on each ship-

3. The Dairy Commissioner agrees to pay the association on each shipment of butter received by him from the association such advances as he may estimate to be about ninety per cent. of its selling value, and to pay the balance due on such sales after the season's butter has been disposed of.

4. The Dalry Commissioner agrees to Insure the butter against loss by fire only while contained in the cold storage building at Calgary as trustee for and on behalf of the association to the amount of two-thirds of its estimated market value.

5. The association agrees to employ a properly qualified buttermaker, approved by the Dairy Commissioner, and to accept and carry into effect such directions as the Dairy Commissioner may give from time to time respecting the details of the manufacturing, the packing and the shipping of the butter to be sold by him.

6. The association agrees to use no packages and packing material bearing "Provincial Government Creameries" brand except for creamery butter

which is shipped to the Dairy Commissioner or order.

7. The association agrees that all butter shipped by them to the Dairy Commissioner grading below "Seconds" is to be packed and sold in plain packages and any re-packing that may be found necessary at the grading station is to be done at their expense.

Dated at	this day of
A.D. 1912. Witness:	
Witness:	President of the Association. Secretary of the Association.
Witness:	Dairy Commissioner.

(Agreement No. 3.)

MEMORANDUM OF AGREEMENT.

BETWEEN:

THE DAIRY COMMISSIONER, ACTING FOR THE DEPARTMENT OF AGRICULTURE FOR THE PROVINCE OF ALBERTA

and

..... OF ALBERTA.

- - (1) The average cost of railway freight paid on all butter shipped to him for marketing at Calgary or other points in Alberta.

 - (3) The pro rata cost of handling the butter in cold storage at Calgary or other point until it is finally disposed of.
 - Any financial loss incurred on account of short weight of, or mold in or on butter so received and marketed.
- 2. The Dairy Commissioner agrees to grade and classify according to its marketable quality all the butter received by him for disposal during the season of 1912, to pay a premium of two (2) cents per pound on all butter graded as "Firsts" and to maintain a uniform standard for grading.
- 4. The Dairy Commissioner agrees to insure the butter against loss by fire only while contained in the cold storage building at Calgary as trustees for and on behalf of......to the amount of two-thirds of its estimated market value.
- 5.agrees to employ a properly qualified buttermaker, approved by the Dairy Commissioner, and to accept and carry into effect such directions as the Dairy Commissioner may give from time to time respecting the details of the manufacturing, the packing and the shipping of the butter to be sold by him.
 - 6.agrees to use no packages and packing material

bearing "Provincial Government (Creameries" brand except for creamery
butter which is shipped to the Dair	y Commissioner or order.
7agrees th	at all butter shipped by him to the Dairy
Commissioner grading below "Seco	onds" is to be packed and sold in plain
packages and any re-packing that	may be found necessary at the grading
station is to be done at his expense	· · · · · · · · · · · · · · · · · · ·
Dated at	thisday of
Wltness:	
Witness:	
Trining.	Deimy Commissioner
	Dairy Commissioner.

IV.—EDUCATIONAL BUTTER SCORING CONTEST.

An effort was made in the early part of the season to interest the Alberta creameries in this contest and the following letter was mailed to the local management of each:

EDUCATIONAL BUTTER SCORING CONTEST, ALBERTA.

Dear Sir,-

The scope of the "Educational Butter Scoring Contest" heretofore carried on by the department in connection with the government creameries will be extended to all creameries in the province for the season of 1912.

The main objects of the contest have been to help the buttermakers in their work from week to week by pointing out where and how improvements might be profitably made in the quality (flavor) and workmanship (texture, color, finish, etc.,) of their butter output and to promote a spirit of friendly emulation among the participating creamery organizations, as to who could do the best work and turn out the most valuable product.

The contest has been conducted by the department during the past five summer seasons and resulted in a gratifying improvement in the quality and in the workmanship of the butter made in the creameries.

The contest involves a close, expert examination of the flavor, texture, color, salting, finish and weight of representative packages of butter from each churning made at a creamery throughout the season. The result of this examination is expressed in comparative figures upon a score card and the principal defects found in each package are noted. A copy of the score card is malled to the shipper of the butter immediately upon the completion of the week's scoring and helpful suggestions given as to means of correcting the more serious defects found. Comparative weekly score summaries are also furnished, showing the relative standing of all the creameries and other interesting and useful particulars.

PACKING AND SHIPPING OF BUTTER FOR CONTEST.

One 14th. box, solid pack, is to be put up from each churning and, for identification purposes, plainly marked with name of the creamery and the serial number of the churning. A shipping report, covering each shipment is to be made in triplicate so as to give full particulars as to date and serial number of the churnings from which the samples were put up, churning temperature of cream and other details. The samples are to be shipped by freight to the government cold storage, Calgary, on regular butter shipping days throughout the season. The shipping report, in triplicate, together with original clear bill of lading covering the butter shipped is to be promptly mailed to the Dairy Commissioner who will furnish blank forms and other information desired concerning the contest.

DISPOSAL OF THE BUTTER.

The butter shipped to the scoring contest may, at the option of the shipper, be sold to best advantage by the Dairy Commissioner who will remit in full the revenue less freight charges advanced, if any, or the butter may he delivered to the order of the shipper upon the payment of inward transportation charges, if any, advanced by the Commissioner.

PRIZES.

While the contest is, in itself, an educational feature of great interest and value to the creameries and buttermakers who will take advantage of it there will be a number of premiums awarded in connection with it. In addition to special cash and other prizes that may later on be offered from other sources for monthly or district competitions the Department of Agriculture offers the following prizes in the 1912 contest, viz.: A handsome trophy for the creamery and a gold medal, suitably inscribed, for the buttermaker having the highest average score for the season, and silver medals, suitably engraved, for the buttermakers of the following "best third" of the participating creameries.

Faithfully yours, C. MARKER,

Dairy Commissioner.

Following are copies of score card and shipping report enclosed in the letter:

PROVINCE OF ALBERTA DEPARTMENT OF AGRICULTURE

Office of the Dairy Commissioner

C. MARKER, Dalry Commissioner, Calgary

BUTTER SCORE CARD

		Mar	ks o	n Pa	cka	ges	lette	r	Details and Reference Numbers								
									Of Defects	Of Defects To Score							
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Date:																	
By:		- 1															
Check Weight		-															

PROVINCE OF ALBERTA

Department of Agriculture-Dairy Commissioner's Branch EDUCATIONAL BUTTER SCORING CONTEST

SHIPPED from	(Name of (Jream-	ery)to	Governmen	t Cold S	Storage,	Calgary
Date	. Refrigerator	r Car	No	Shipping	Weight		Tos.

CHURNING					No.	of P	ACKA	GES	Gradi Cres	n g at ımery	, Score at Calgary Date			
Date	Ten		본	56	2	14	50	40	20	Crm.	But.	Flavor	Pound	
Date	Crm.	w.wat	Mark		ļ <u> </u>							45	Grade 1 Gr	ade 2
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REMARKS:

Deliver this butter to	card complete; or
	Shipper.
This is to certify that the contents of each package included in this shipment is true to churning numbers marked thereon.	Received and Checked.

..... (Signature) Buttermaker

On.....191

NOTE.—This report to be made and forwarded in triplicate at the time of shipment.

SHIPPING REPORT.

(1) This form is to be filled out so as to give accurate information of every churning represented in the shipment (see other side), viz.: the date, and the temperatures of the cream and wash water of each churning (these temperatures have an important bearing upon exhaustive churning and upon the texture and keeping quality of the butter); marks on packages ("serial churning numbers"); number of boxes of each size; grading of cream and butter at the creamery; total number of packages in shipment and total net and shipping weights. The shipping report, in triplicate, is to be forwarded promptly to the Dairy Commissioner together with the original clear bill of lading covering the shipment. Endorsements on the bill of lading such as "shipper's count" or "more, less" should not be accepted, otherwise the shipper accepts the responsibility of any shortage that may occur in transit.

(2) Packing and marking of butter boxes: After each box is lined with properly prepared parchment paper its weight should be taken and 14¼ lbs. of butter packed into each 14lb. box. The name or "letter" of the creamery, the "serial churning number" and the shipping mark, "C. M., Calgary," must be plainly and neatly stamped on each box, also on the sack enclosing it so

that particulars may be seen without removing the sack.

(3) The flavor of the cream in the vat and used for the individual churnings should be examined carefully and the grade recorded in column II. of the shipping report, using the letters "A," "B" and "C" to express "cholce," "fair" and "poor" respectively with the addition of a key-number which stands for the specific defects found as marked in the attached copy of butter score card under the heading of flavor. If, for instance, a churning of cream is considered only fair because it is weedy in flavor it should be graded "B3," if the cream for a certain churning is very sour and stale in flavor the grade would be "C46," and so on. The grades of the butter may be recorded in a similar manner in column 12 and if desired the score for flavor may be recorded as well.

(4) A complete score and summary of grading of each week's shipments of butter to the government cold storage, Calgary, will be mailed to the shippers from week to week.

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Dairy Commissioner's Office, Calgary, May 3, 1912.

Twenty-two creameries entered in the Butter Scoring Contest, fifteen for the whole operating season and seven from time to time.

The winners of the prizes offered by the department, were:

J. J. Skalitzky Viking Trop	hy and	Gold Medal
M. L. CampbellRed Deer	Silver	Medal
W. H. Jaekson Markerville	••	"
Wm. HansenInnisfail	••	**
John A. BrownQuarrel	••	"

V.—COMMERCIAL GRADING OF CREAMERY BUTTER.

On May 21st. a further communication was addressed to the managers of the creameries, reading as follows:

Calgary, May 21, 1912.

Dear Sir .-

On the 6th. inst. we wrote you a letter on the subject of the Educational Butter Scoring Contest for the season of 1912 and invited you to join. While we have as yet received no intimation from you as to whether you will participate in the contest we believe that the proposition is worthy of your favorable consideration.

The contest for the prizes offered by the department will commence on June 1st. and continue up to the middle of October. The creameries joining the contest will ship by freight to the government cold storage at Calgary on regular butter shipping days one package from every churning of butter made during the operating season or between the dates specified, as explained in our former letter. The 141b. boxes can be bought from the people who are now supplying you with butter packages.

Apart from the competitive and educational features of the scoring contest there is to be another side to it this year. A short time ago a firm who is engaged in the wholesale produce business in this city asked us as to whether the department would undertake to grade the creamery butter shlpped into this market and stated that if uniform grade standards could be established and the grading done by a disinterested party it was practically certain that the wholesale produce merchants would buy and pay for butter strictly according to quality.

In view of the success which had attended the work of the department in co-operation with the trade and with a number of creameries along this line during the past two seasons it was felt that the interests of the patrons, the creamery operators, the buyers and the consumers of creamery butter could be well served by the extension and general application of the grading and quality payment principal, both as between the buyers and the creameries and as between the creameries and their patrons.

A meeting was held a few days ago for the discussion of the matter with the wholesale huyers of Calgary. The following firms were represented at the meeting, viz:—P. Burns & Co., Ltd.; The Swift Canadlan Co., Ltd.; Campbell & Griffin, Ltd.; Plunkett & Savage, and P. Pallesen.

At this meeting the writer submitted a plan whereby the department

At this meeting the writer submitted a plan whereby the department could and would gladly co-operate with the creameries and with the trade in the establishment of grade standards for creamery butter and whereby the grading of the butter from individual creameries could be done largely in conjunction with the Educational Butter Scoring Contest. This plan was also laid before a meeting of wholesale produce buyers at Edmonton on the 15th. inst. The firms of The Edmonton Produce Co., and The Swift Canadian Co. Ltd. were represented at the meeting.

Ltd. were represented at the meeting.

The details of the plan received the unanimous endorsation of both meetings and we have every reason to believe that all the principal wholesale buyers of Alberta creamery butter will after June 1st. buy on the basis of grade, paying a higher price for high grade than for low grade butter. We regard this as a very important step in the right direction and feel that the quality creameries as well as the trade generally will hail a move of that kind with pleasure and satisfaction.

Following is the plan according to which the commercial grading of butter can be done in conjunction with the Educational Butter Scoring Contest conducted by the department:

I. Each participating creamery or shipper:

 Will use a separate, serial churning number for each churning of butter throughout the season;

- (2) Will write or stamp plainly and legibly in addition to the name of the creamery or of its owner, the same number on all packages put up from the same churning and give on the shipping report all details required concerning each shipment of butter;
- (3) Will give the department signed instructions on the shipping report, covering the scoring samples, with regard to the disposal of the samples; also name the buyer, person or firm, to whom score records of the samples are to be sent by the department.
- Suggestion:—Keep a small sample of butter from each churning for comparison with grade and score reports from the department and from the trade. Such samples should be kept in a cold place and in containers bearing their individual churning numhers for the purpose of identification.

II. The department:

- (1) Will score the samples upon arrival at the government cold storage or other point that may he specially designated later, mail as soon as possible thereafter to each shipper a complete report, score card and summary of scores for the week;
- (2) Will furnish score records to any buyer upon the signed order of the shipper, it being assumed that the churnings and churning numbers of the samples and of the main shipments are always identical;
- Note: The department's grades will necessarily be based upon the score of the samples sent in to the scoring contest, but the commercial grades of the main shipments to the trade may be determined hoth by the department's scores of the corresponding samples and by the general condition of the main shipments as at the time of receipt. Poor workmanship on the part of the buttermaker is often responsible for otherwise good butter, i. e. good flavored butter, being placed in lower grades and poor storage facilities at a creamery may also be responsible for rapid and marked deterioration in the quality of butter stored, even for a short time. It is to be understood that in all cases the score of any butter, particularly for flavor, shall relate only to the condition of the butter actually scored and as at the time of scoring;
- (3) Will not place grade on butter which shows mold or mustiness, in appearance or in flavor (See circular "Mold on Butter," May 13, 1912.)

III. The buyer:

- Will inspect weight, workmanship and general condition of the butter and of the packages in the main shipment;
- (2) Will base grades on the department's scores and upon the general condition of the butter in the main shipments as at the time of receipt (See note under "The Department.")

In offering the service involved in carrying out the plan just outlined the department believes that the creameries of Alberta and the buyers of creamery butter can get together on a practicable scheme for marketing butter on a quality basis, which is the only logical and just basis for each party, and the extent to which these parties will take advantage of this assistance remains with themselves.

In order to assist you to prepare for the new order of things and assuming that you are quite as willing to sell as the trade will be to buy on a strictly quality hasis, we attach specimen shipping report with typewritten suggestions on the back and under separate cover we mail you one dozen copies of Form D 2 so you may from the start be ready to meet the requirements of the people to whom you may sell your butter on a grade basis.

We are forwarding also six copies of the same form adapted to, and to be used only in connection with the Educational Butter Scoring Contest as directed on the specimen copy attached to our letter to you of the 6th. inst.

A further supply of these forms will be furnished upon application.

The Educational Butter Scoring Contest in conjunction with our advisory and expert field service should render valuable help to the participating creameries who may need it. In our efforts to promote the interests of dairying, and that means the interests of all who are connected with it, we should all work towards the attainable ideal: "All as good as the best."

A copy of this communication is being mailed to the principal produce merchants and to the management of all the creameries in the province.

Faithfully yours,

C. MARKER, Dairy Commissioner.

The service thus offered was not used by the creamery operators who marketed their butter themselves to the extent we had expected. This is, in a way, a matter for congratulation as it goes to show that both the quality and the price of the product has been satisfactory to buyer and seller alike. They are, after all, the principal parties interested.

It is quite possible, however, that market conditions may develop in the near future which will make a service such as we have here outlined with or without modifications, both desirable and acceptable to those who are immediately concerned.

VI.—Convention of Creamery Delegates.

The Annual Creamery Delegates' Convention was held at Red Deer, April 4th and 5th. It was called for the purpose of presenting reports and addresses and for the discussions of dairy matters generally such as markets, quality basis payment for cream and butter, creamery inspection and instruction and dairy herd management. Special attention was given to the question "How can we best encourage and promote the dairy industry in the several sections of our province."

Acting upon the invitation issued by the department, the following creameries were represented at the convention:

The Innisfail Association, by J. R. Moore, President. The Markerville Association, by D. Morkeberg, Secretary-Treas. The Lakeview Association, by Wm. Graham, President. The Spring Lake Association, by Henry Eshpeter, Director. The Cardston Association, by D. S. Beach, Secretary-Treasurer. The Red Deer Association, by James Comer, President. { E. Carswell, Secretary-Treasurer.}
The Blackfalds Association, by
(H. A. Gracey, Buttermaker.
The Rimbey Association, byJ. H. Beeley, Secretary-Treasurer
The Beaver Lake Association, by B. M. Bendikcon, President.
The Viking Association, by J. J. Skalitzky Buttermaker.
The Nanton Association, by J. J. Duggan, President
The Ferrybank Association, byE. W. Parker, Buttermaker.
The Bawlf Creamery, byJ. E. Hansen, Proprietor.
The Trimble Creamery, by H. W. Trimble, Proprietor.
The Alberta Central Creamery, Edmonton,
by
The Pine Lake Creamery, by F. T. Edwards, Proprietor.
The Neapolis Creamery, by
The Goiden Rose Creamery, Camrose, by F. Pratt, Buttermaker.
The Red Lodge Creamery, by
The Quarrel Creamery, byJ. A. Brown, Proprietor.
The Calgary Central Creamery, by P. Pallesen, Proprietor.
The Clive Creamery, by
The Vegreville Creamery, byJ. E. Cunningham, Proprietor.
The Pincher Creek Creamery, by W. R. McKerricker, Proprietor.
The St. Paul de Metis Creamery, by Omer Massicotte, Proprietor.

The following representatives of the Department of Agriculture were in attendance: George Harcourt, Deputy Minister; C. Marker, Dairy Commissioner; H. S. Pearson and Geo. W. Scott, Dairy Inspectors; and G. H. Hutton, Superintendent of the Dominion Experimental Station at Lacombe.

The produce trade was represented by Mr. A. S. Duclos of the Edmonton Produce Company; Mr. L. Lambert and Mr. C. G. Sanford of the Swift Canadian Company.

The principal daily and agricultural journals circulated throughout the province were represented at the convention, and excellent reports were given in a number of publications of its proceedings.

In a report of the proceedings of the convention much matter must necessarily be omitted especially such as be of momentary or individual interest only. Some of the principal addresses are recorded here according to the manuscript furnished by the speakers; others are reported more briefly yet keeping in view the salient points made.

Mr. George Harcourt, Deputy Minister of Agriculture, occupied the chair at the initial session and on behalf of the department welcomed the delegates. He pointed out that conventions such as this were intended to be a clearing house for information on dairy topics. He invited the delegates present to get the greatest practical benefits out of it by a free discussion of the various phases of the industry that might be presented

by the speakers, the department or by the delegates themselves.

C. Marker, Dairy Commissioner, was then asked to present a review of the dairy industry of the province for the past year. In doing so he used some of the statistical material and subject matter given in the dairy section of the report of the department of agriculture for 1911, and need not be repeated here. He pointed out that the extension of the department's marketing service had evidently met with the approval of the creameries as eight (8) new ones availed themselves of it. He pointed out that in trying to secure and hold good markets, the department was in exactly the same position as any other commercial agency, that regular supply of the right quality of goods was essential for best results. He stated that seventy (70) per cent. of the butter marketed through the department during the year was made in the three months-June, July and August, when the price is generally lowest. He urged a more even distribution of the year's production so as to have something to sell when the market is comparatively short and prices good. He was well aware that it is not an easy matter to change the present short season of production to cover a much greater period of the year, though it would undoubtedly be found profitable.

Such a change will demand fairly good feeding and care of the dairy cow, and he was particularly pleased to say that Mr. Hutton, the Superintendent of the Dominion Experimental Station at Lacombe, would address the convention a little later on upon this very important subject. Mr. Hutton is an enthusiastic dairyman and is regarded as one

of our best authorities.

The commissioner referred to the continued success of the cream and butter grading system adopted by the department in eo-operation with a number of creameries in 1910. He was strongly of the opinion that a creamery selling butter in a "quality" market was not doing justice to the best of the patrons unless it, in return, provided them with a quality market. When the patrons are given a quality market for their cream, they will soon take advantage of the cducational facilities available through various channels.

Each creamery has two principal points of contact, its patrons on the one hand and its markets on the other. From his experience as to the working out of the grading system, the speaker had no hesitation in saying that the general adoption of that system by all the creameries will mean not only additional revenue to our farmers and creamery men, but also greater prestige for our products in the best markets and more satisfaction to the consuming public, who pay the price in the markets that are really worth catering to. Thus we may lay a deeper and more enduring foundation for future expansion.

So much having been said about the indifferent creamery patron, the speaker said that he had come to the conclusion that the "indifferent" patron, as such, is very largely a product of our creamery system. So long as creameries continue to pay the same price for butterfat in cream, irrespective of the condition of the cream, so long will they have poorly cared for cream and indifferent patrons. They simply put a premium on indifference. The wonder of it is that there is not more of it.

As to whether any individual creamery ought to take up, and follow, the grading and premium system is a question, in the speaker's judgment, for the quality patrons to decide, as they are in most cases in the majority. If and when they choose to assert their right the reform must come sooner or later in proportion, as their demands are unanimous and sustained. So long, however, that they are satisfied to share the losses resulting from careless methods on the part of the indifferent patrons, there is perhaps no one who has a right to deny them the privilege.

In the discussion which followed, a number of the delegates expressed themselves as entirely satisfied with the results of the system of quality payment at their own creameries. They had succeeded in converting many indifferent patrons into quality producers, and on the other hand, they had succeeded in getting better market prices than ever before for the butter that they had to sell.

Mr. Duclos, of the Edmonton Produce Company, addressed the convention as representative of the produce trade. He endorsed the principle of quality basis payment for dairy and other products, in fact he considered it a most important factor in the marketing of products. The grading should begin with the cream brought into the factory and the patron should be paid on the basis of actual value.

In his opinion three grades of cream should be established, namely, Extra First, First and Second. Cream that would not qualify for second grade should not be accepted, and second grade cream should be accepted not more than two or three times in a season from any one patron. He also thought that the different grades of cream should be kept separate at the creameries and separate churnings made from each, according to their grade. By doing this the buttermaker would turn out an extra first butter, Number One and Number Two, and he would receive payment according to these values from the trade.

Speaking of marketing, Mr. Duclos emphasized the necessity of having the butter put up in neat, clean packages and the use of the best quality parchment paper for lining the boxes and for wrapping the one-pound prints. He advised the creameries to adopt registered brands or trade marks and sell their butter under such brands or marks. The brand should be stamped on each box and would serve as a mark of distinction in the market besides being the means of inspiring the butter-maker to keep up the standard of quality of his brand. He also called for proper weights and said that each fifty-six pound box should have a pound above its actual marked weight. He explained that by the time

most of the butter was placed on the ultimate market, considerable evaporation of moisture had taken place and this always means a loss of

weight to the contents of each package.

For the general market Mr. Duclos recommended the buttermakers to pack their butter in fifty-six pound boxes, as the contents of the larger package kept its good flavor longer than that of smaller packages, other conditions being equal. It was more convenient to the dealer to cut the larger packages into one pound prints if the trade should demand that style of package rather than the original package. It would also save labor at the factory, as well as in the future handling of the butter. Of course the smaller packages such as the 28's and 14lb. boxes, should be put up when there was special demand for the butter in that form. Concerning the marketing of butter, Mr. Duclos was of the opinion that all the creamery butter production should be marketed on one or two butter boards established in the province, perhaps one at Calgary and one at Edmonton, as he considered that the marketing on butter boards established the true standards of value, and all butter is bought and paid for according to its quality.

Mr. Duelos referred to the fact that some 200 carloads of eastern butter had been shipped into the western provinces during the year past. He promised the dairymen of the province that if they would produce the quality and the quantity required by the markets the Alberta produce man would take the responsibility of doing the marketing for them and

thus keep thousands of dollars at home.

In closing Mr. Duclos spoke of the good work that had been done by the Provincial Dairy School at St. Hyacinthe in the training of butter and cheese makers, and he hoped that before long Alberta would establish a similar school, believing that such an institution would do more than any other single agency towards dairy development along right lines. He thought, also, that the dairy instruction and inspection service should be so enlarged that visits could be made to the homes of the individual dairymen in any part of the province.

EVENING SESSION.

The evening session took the form of a public meeting in the assembly room of the public school, which was kindly placed at our dis-

posal by the school board.

His worship, Mayor Welliver, occupied the chair, and in a brief address welcomed the convention to the town of Red Deer. He said that the town council and the board of trade at Red Deer wished officially to note the occasion and entertain the visiting delegates. They had come to the conclusion that the most acceptable entertainment would be a visit to some of the dairy farms and herds of the district. Arrangements had been made for a number of motor cars to take the delegates out the following morning.

His worship said that the dairy industry had been a very important factor in the development of the Red Deer district and he hoped that the visiting dairymen would carry away with them pleasant recollections

of their visit here.

Publicity Commissioner J. R. Davison also spoke entertainingly with regard to the great development that had taken place in eentral Alberta during recent years and this he accounted for largely by the extension of the dairy industry, which was so well exemplified in Red Deer. He referred to the fact that the Red Deer district had probably

a larger number of pure bred dairy stock than any similar territory to be found in Alberta. He stated that in the course of the next few weeks, a number of important industries would be established at Red Deer and among them two or three that would afford the farmers of the district additional and alternative markets for their milk.

At the conclusion of Mr. Davison's speech, Mr. Geo. Harcourt, Deputy Minister of Agriculture, was invited to address the convention upon a subject which comes very close to most people.

Before commencing his address, Mr. Harcourt expressed regrets at the Minister of Agriculture being unable to be present at the convention and read a telegram that had just been received from Hon. Mr Marshall at Toronto:

"Regret absence from convention. Tell delegates I am absent arranging shipment of dairy cows to help their business. Department also pleased to give all possible assistance in marketing dairy products for all creameries in Alberta. Also will have better dairy instruction in agricultural schools in the near future. Best wishes for successful meeting."

Following is the text of Mr. Harcourt's address:

NEGLECTED OPPORTUNITIES.

It may be stated that most of us are here because of the opportunities to regain health or amass wealth. It is a well-known fact that the climate of Alberta is very favourable to those suffering from pulmonary troubles, but it is not to this opportunity, valuable as it ls, that it is desired to call attention; neither is it the intention to dwell on the fact that for thousands of years nature has been accumulating an amazing store of fertillty in the virgin soils of the prairies and park lands of Alberta; nor is it the desire to undervalue the other fact that with a minimum of labor the veriest tyro at farming may convert this store of fertility into wealth in actual cash. Men have recognized this opportunity as one of a lifetime and wide awake men are scrambling after land in a mad rush. In such great haste are they bending every effort to bring an ever increasing area under grain that there is grave danger of them overlooking or forgetting the numerous other opportunitles to acquire wealth that are knocking at their very doors.

Without doubt it is advisable that every beginner profits in large measure from the wealth nature has stored for him, but it would seem that there comes a time when he must seriously consider the wisdom of having all his eggs in one basket, as the present craze for extended wheat areas may be rightly described. Surely the past two seasons may be taken as indicating the folly of such a course and pointing to the necessity for more diversified farming.

If, then, a farmer wishes to diversify his work, what avenues are open to him? The object of this paper will be to direct attention to some of such lines of work. They are quite numerous and anyone may choose one or more, or a combination, such as meets with his individual tastes. Through the breaking up of the large ranches the live stock industry of the province ls in a transition stage at the present time, and therefore to the observant man presents many openings for successful work.

HORSES.

One of the greatest opportunities ever presented to horse lovers is offered at the present tlme. Generally speaking, Alberta possesses an ideal climate and soil for raising a high quality horse of great stamina and soundness of wind and ilmb. With the breaking up of the large horse ranches the supply of saleable stock must now come from the farms or be brought in from outside the province. Already importations have been brought in. The farmers of the Brandon district in addition to growing their usual acreage of grain raised and sold last year about \$400,000 worth of horses, most of which came to Alberta.

Prices are high at present, but there does not appear to be any satisfactory reason why they should not go higher still. When one considers the enormous amount of railway construction now under way and to he huilt in the near future (for we are only beginning to build railways), the requirements to meet the demands of the new settlers coming in hy the thousands every week, the supply needed by the rapidly growing towns and cities, the number necessary to fully stock the farms and bring the land under cultivation; and, when one realizes that not more than three per cent. of land in the province suitable for growing grain is now under cultivation, and that lying to the west, north and east of the capital of the province there is an area still to settle, capable of growing grain, as large as that now only partially settled between the Rocky Mountains and Winnipeg, it would seem that a slump in values cannot occur in the near future. It is manifestly apparent that the price of horses will maintain a high level for many years—long enough anyhow for many men to engage in the business and to derive good returns before there is any prospect of a slackening in demand. If a man cannot buy a nice bunch of breeding mares, buy a few weaned fillies this fall and grow them. They will make money faster than many a lot in some outside subdivision.

CATTLE,

Much of the above is also applicable to the cattle situation. It is generally admitted that there are not many more than half the number of cattle in the province to-day that there were five years ago. The last census of the United States shows that there is approximately ten million fewer head of cattle and twenty million more people than there were ten years ago. The fact is we are fast running behind in the supply of beef cattle and it would be the part of wisdom for every one to stock up as rapidly as possible. There is a paying harvest for the man who does. The regrettable feature of the situation is that with the breaking up of the ranges the shestock has been sold to the butchers, and it will in consequence take years to re-establish the old numbers of breeding stock. Aim to increase the number of your breeding stock. If you haven't got them decide to invest in as many as you can—buy weaned calves in the fall and grow them, and do not forget that the first winter is the making of them. Buy either heifers or steers as you intend to go in for breeding stock or growing beef steers.

It has been amply demonstrated at the Dominion Experimental Farm at Lacombe and at the Provincial Demonstration Farms at Claresholm, Olds and Vermillion, that feeding a bunch of steers is profitable work for the winter. But unless some one grows the calves, where are the steers to come from? There is thus room for two industries—one to grow the calves into steers, and a second to fatten or finish them. The outlook for this work is bright for high prices must prevail until the country catches up. The supply is so far behind, settlement taking place so rapidly and population increasing the mouths to eat as fast that it will be many years before values fall to the old time prices.

What has made the states of Illinois and Iowa so famous? It is the numbers of steers from the western ranges that are fed every winter, enriching the farms as well as the pockets of the feeders. Alberta can grow an abundance of feed; her dry steady winter climate permits of feeding in the open at little expense and there is no valid reason why many farmers should not engage with profit in the winter feeding of a bunch of steers. Get into the game.

SHEEP.

The sheep industry has been sadly neglected. When the housewife asks for lamb or mutton and is served with frozen or chilled goods from Australia and New Zealand, there surely is something wrong. There is no better or quicker money-maker on the farm, and many a nice flock could be maintained. As soil packers on the summer fallow and scavengers of waste places to keep down weeds there is nothing to equal our fleecy friend. Fencing enters into the prohlem it is true, but the gain to be made on what would otherwise be lost, will soon meet the cost of fencing. They are deserving of more careful trial than they have had.

SWINE.

Much the same story as with sheep may be told about hogs. They give quick returns for the money invested, and properly handled are real mortgage lifters. Some years ago when prices were low, many farmers stopped raising hogs. There was no money in it they said. Nevertheless, those farmers who continued raising a nice bunch of hogs each year have been receiving good paying prices while those who did not have been the losers thereby.

The recent census returns show that the population of the province has increased slightly over 102 per cent. during the past five years, but the interesting point is that the population of the towns and cities has heen increasing much more rapidly than that of the rural districts. Then, as many men have quit growing hogs for sale, the number of hogs marketed is not increasing as rapidly as it should. There is thus an increasing number of consumers and less increasing supply. This is borne out by the actual situation as the packers have to bring in from outside the province large supplies to meet local demands. There is surely something wrong when such a condition exists, or there must be some truth in the contention of some farmers that hog raising does not pay. Shut up in filthy pens and fed expensive grains as many hogs are, it is not surprising that they make their owners no money. This is not the fault of the animal but of its owner. Give the pig a chance with suitable pasture runs, feeds and yards and he will soon demonstrate that growing him is a lucrative business for his owner. In addition to the local market there is an excellent one in the mining and lumbering camps of the province to the west. Prices have ruled high for a number of years and a survey of the situation shows no satisfactory reason why a further period of comparatively high values should not continue. Expensive housing is unnecessary. Damaged and unsaleable grain can be converted into a high class product and good money made handling our porcine friend if this neglected opportunity is seized aright.

POULTRY.

The dry climate of the province is very favourable for poultry raising. The cold of the winter is not to be feared, as it has been shown time and again in all parts of the province that birds can be successfully handled in very cheaply constructed houses. The province is importing in round numbers about \$400,000 worth of eggs and poultry products. The industry has made wonderful strides during the last few years, but it is not keeping pace with the demand. Then there is a large and growing market in the province to the west of us always hungry for our surplus products.

To the farmer who will persist in growing grain exclusively or he who does not care for the larger domestic animals, the industrious hen is recommended. She will convert his unsaleable grain into a marketable product and give him a revenue when his land is idle. It is easy to start in this line of work—and the returns are quick and highly profitable. It will never be overdone and the market will always be good for high quality products. It certainly is a neglected opportunity on many a farm.

DAIRYING,

Of all the various lines of work on the farm, dairying makes the most demands on a man's time. "Tled to a cow's tail" aptly describes the situation. Yet it is because of this very fact, dairying is one of the best money making lines of work. Population has increased so much faster than the production of milk and hutter that the former has reached a very high price, and will soon be too expensive for poor people. Carloads of the butter have to be imported to supply the demand. Last winter Calgary milk dealers were paying \$2.40 per hundred for milk delivered and at Edmonton \$2.40 to \$2.30, and then were not able to meet the demand, while the very highest price paid to the Ontario farmer and then only for a short time was \$1.75 to \$1.85 per hundred delivered in Toronto. If the Ontario farmer can make money selling milk at the above prices, (and he has been selling for much less in past years), the Alberta farmer should coin money at the prices he receives. He can grow feed more cheaply than his Ontario cousin and his

stabling need not cost him any more. It is a splendid opportunity for the industrious man, and will continue to be for many years until men get over their foolish objection to "pulling teats." Unless more engage in the business, prices of milk to city customers will become prohibitive.

VEGETABLES.

Did you ever see a finer display of vegetables than is to be seen at any fall fair? Our climate is exceedingly favourable to the growth and development of ail kinds of vegetables. Every one knows that. But who is taking advantage of it? Do you know that turnips and carrots are worth 50 cents a bushel by the carload and that supplies have to be brought in from Ontario and British Columbia? It is a fact. We do not grow enough of the things that grow to such perfection to supply our own demands. It is the same with potatoes. Our soil will grow the very finest of dry potatoes, but we import them by the carload. Then it is difficult to find anything but a soggy wet potato among the home grown article for sale. Why? Because we are so busy sowing a large acreage of grain that we haven't time to plant the potatoes early enough so that they may ripen before the frost catches them in the fall. There is an opportunity along these lines that will bear investigation by the interested man.

FRUITS.

Strawberries, raspberries, currants and gooseberries grow wild in profusion all over the country, and where the wild ones grow the tame varieties will succeed well. A few farmers are starting small plots but there is an opportunity here that few see, but one which does offer golden opportunities to those who care for this line of work.

CONCLUSION.

Attention has been called to opportunities along a number of lines of farm work that offer an opening for development. There are others. Look about and consider the market demands for all kinds of farm products. Remember that the consuming population in this province and the adjoining ones too is increasing more rapidly than the producing; that railway construction has only begun so far as this province is concerned and that the province is exceedingly rich in mineral wealth and that the mining industry is only in its infancy. This all means continually expanding markets for all kinds of farm produce. When our own markets are supplied there is another equally as good to the west of us, a province rich in mineral and forest wealth and limited in its ability to produce agricultural products. The opening up of British Columbia with railroads spells opportunity with big letters to the farmers of Alberta.

With assured markets for all kinds of farm products and with the soil and climate to grow these products of high quality in abundance, what more can a man ask? There is to-day a most inviting opportunity for every farmer in the land to break away from exclusive grain growing and engge in more diversified farming.

At the conclusion of his address, Mr. Harcourt presented the prizes which had been awarded by the department in the 1911 Educational Butter Scoring Contest, with appropriate and commendatory remarks to the winners, who were:

J. J. SkalitzkyViking	Trophy and	Gold Medal
D. MorkebergMarkerville	Silver	\mathbf{Medal}
M. L. CampbellRed Deer	••	••
A. A. MunroRimbey	••	••
John A. BrownQuarrel		••
E. H. MillsConjuring Creek	. ••	••
Wm. Hansen Spring Lake		••

BREEDING AND MANAGEMENT OF DAIRY CATTLE.

This subject was dealt with by Mr. G. H. Hutton, Superintendent of the Dominion Experimental Station at Lacombe. He said:

"Mr. Marker asked me to be present and speak to the Dairy Convention on the question of breeding dairy cattle and also in respect to the management of a dairy herd. I am pleased to do what I may for the advancement of the dairy industry and in fact of all branches of the live stock work in this province. I firmly believe that live stock has a permanent place in the agriculture of Aiberta, that its place in that agriculture will be continually enlarged until finally the live stock industry will be regarded in its rightful position with respect to agriculture, that is, as being its chief support and its strongest pillar.

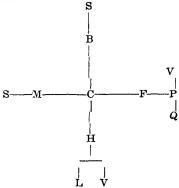
"The reason for my faith in live stock as a guarantee for the permanence of our agriculture rests upon two main facts. First, that our live stock supply to the soil those constituents which promote and permit plant growth of all kinds. The first few crops produced by our virgin soil are heavy for they draw upon the fertility which has accumulated through the decay of vegetable matter of centuries. A century is a short period of time in the world's life. What has taken centuries to accumulate may unfortunately be subjected to waste and be lost to the generations which it was intended to serve by the wasteful methods of one generation of careless farmers. The other fact on which my faith in live stock as a dominant factor in our agriculture rests is that men love live stock and that greater skill and thought and personality and application is required in the production of high class forms of animal life than is necessary in those who would make successful grain growers. In fact we find that these men on our farms who are producing live stock of high quality are usually producing grain crops of superior merit.

"I believe also that there is special reason for the dairymen of our province to be encouraged and to develop their dairy herds from the standpoint of production first and secondly to carry the development along the line of increasing the number of dairy cattle kept. I would commend that order of advancement. We have heard that faith without works is dead. If this is true, then it is also true that witbout faith we do not bave works and since we desire to increase our work in the dairy branch in this province it may be well for us to notice some reasons wby our faith should be strong in the dairying business and why, because of this strong faith, our work should be greatly increased.

"I am of the opinion that our climate is not excelled for the successful breeding of dairy cattle and also for the bringing of these carefully bred animais to their highest possible development. We have a dry air in the winter seasons, our average winters are not so severe as the average of most of the other provinces of Canada. While it is true that the thermometer registers low temperatures it is also equally true that the penetration of the cold air in Alberta because of its dryness is not as great as in the eastern provinces. Our province as a whole is well watered, our natural pasture in central Alberta is quite good, while we excel in the production of forage crops such as peas and oats, and in alfalfa (comparing the production bere with other unirrigated lands), roots and such coarse grains as barley and oats. Cultivated grasses such as timothy, brome, western rye, and blue grass flourish here and aside from alfalfa, among the legumes, we have alsike clover and red clover and I may say that I bave never seen alsike superior to that which central Alberta can produce. We have, therefore, a large range of fodder crops suitable for feeding high class dairy cows, we have a climate suitable for the breeding of these cows and from every country we are drawing those progressive people who are looking for new opportunities from which we can draw the men who are to do this business and bring the live stock industry in general and the dairy industry in particular in Alberta to that standard which nature has equipped her to occupy.

"Professor Lebmann at the dairy school two weeks ago gave a number of cbemical pictures; at least be expressed in brief form on the blackboard affinities of carbon, the different forms of lactic acid, the right handed and the left handed and the various combinations possible with their hydrels. And coming after such an array of pictures, I thought it would appear as though I were not giving to the class a very definite contribution if I failed

to give a picture. It occurred to me to place in the centre of my picture the letter "C" which should stand for the very foundation of the dairy industry, the dairy cow. As in the case of carhon, the cow has affinities. One of these essentials I consider to he represented by the letter "B" and from that again a very close affinity of "S." Again in another direction I place another affinity "H" and from it two affinities to be represented by the letters "L" and "V." In another direction I place an affinity the letter "M" and in close relation to this again the letter "S." On the opposite side of the central letter "C" we place the letter "F" and in close relation to this we have the letters "V," "P" and "Q." Thus you see we have every demand made upon the cow satisfied for if we are to require that the cows kept upon the dairy farms of our province are to return to their owners the highest possible percentage of profit, these cows have in turn the right to demand of their owners that they be well bred which is represented by the letter "B' and since even the most careful hreeders find that their efforts toward hreeding the highest type of animal are not always successful, it follows that these cows, no matter how much skill has been exercised in their breeding it is necessary that they he selected. Having endeavored to hreed good cows as far as the breeder can and then having proven the accuracy of his standards hy the scales so that his selection is hased on performance, then it behooves him to give to these cattle the proper kind of housing represented by the letter "H." This housing should have at least two main points in view, light and ventilation, represented by the letters "L" and "V." Having bred, fed and housed our cattie satisfactorily, the efficient dairyman should give to them successful management represented by the letter "M," its close affinity in this instance is system typifled by the letter "S." On the opposite side of the central letter "C," we placed the letter "F" which stands for feeding and in close affinity with this we have the essential features of a satisfactory ration represented by the letters "V," "P" and "Q"; variety, relatibility and quantity. palatability and quantity.



"I would wish first to deal particularly with a few points in connection with two of the affinities of the dairy cow first mentioned, hreeding and housing.

"I am of the opinion that it would he unwise at this stage of our development in the province to urge that hefore a man could hope to achieve any notable success as a dairyman that he be advised to purchase pure hred dairy cows, that in my opinion is not practicable for the average dairyman to do hut the average dairyman can buy a pure hred dairy bull or secure the services of one. There are many parts of Aiherta where the neighbors are settled sufficiently close to each other to permit of three or four men uniting in the purchase of one good huil. In the purchase of a buil for grading up the dairy herd it is important that the individual purchased be the progeny of animals which have heen big producers. Merit is the only excuse for pedigree hut sometimes pedigree is nothing more than a record of breeding of dalry cattie and does not represent production. While the animal purchased should be a good representative of the breed whose name he bears, he should also represent in himself a line of producing ancestry of sufficient strength and length to warrant the expectation that his use on grade cows would resuit in his progeny heing heavier producers than the dam. Future selection of a sire to continue the improvement should be from the same breed. By following this system an improvement is bound to he effected and a change for the better brought about. That is to say that there are many dairymen in this province whose herds are not producing more on the average this year than they did six years ago. Rather than advancing they are standing still and instead of to-day receiving an increased return for their feed which should represent at least 25% increased profits at no greater cost, other than for a bull, they are not receiving 1% increase in profits. Every man should so direct his energies that as the years pass the skill and brains put into his work should be returning to him an ever increasing return. I do not believe that a man who can afford to keep a dairy herd could afford not to own a pure bred dairy bull or to secure the services of one. This then is my opinion as to the first step in breeding dairy cattle and a practical step within reach of almost, if not all, dairymen.

"Having bred our dairy cattle it is necessary that we select them basing our selection upon the scales as to weight and a Babcock tester as to quality. If our standards have been wise and correct the scales will in the majority of cases bear out that judgment and through the aid of the scales and tester, we will be in a position to discard that percentage which do not measure up to our standards as to production. If our standards of breeding and our ideals have been wrongly based the scales and test will in the majority of cases, impress that mistake upon our minds and we will be led to change those ideals.

"The housing of dairy cattle we will now consider. We have said that the two chief points to be considered in housing were light and ventilation. These features may be included in the construction of buildings which are not particularly expensive. I know of one breeder who has a stable in a side hill, it has a board front to the south, well supplied with windows. It is covered with poles and these in turn covered with straw. It is floored with plank and supplied with good wide and deep gutters so that the cows are clean, they have plenty of light, the intake of air is regulated through the windows and the roof itself supplies the outlet. By changing the straw occasionally, conditions, particularly in dry weather, are good. The roof could be boarded at small cost, that cost to be defrayed as soon as the cows have brought in sufficient income to allow it if the man had not that amount of ready cash when he started in. We must admit that in the starting of operations in this country, there are many men who are not able to do what they would like to do and are compelled to adopt means which their cash balance may allow. In the construction of a dairy barn let us have light and ventilation, dry floors and cleanliness.

PART II.

"The dairy herd that has been bred and housed well requires as a first essential, good management in the control of the energy represented by the high bred animal comfortably housed. In the management of dairy cattle as well as in the development of other industries, system is necessary and the word "system" will probably express as completely as any that can be used, the regularity, the well thought out scheme, the perfectly ordered plan that has characterized successful dairy management. Regularity in feeding, watering and in carrying out the other operations in connection with the dairy is an important feature. To plan in regard to the freshening of the herd so that a uniform supply may be available for the regular customer whose trade is especially worth holding is essential. The period of lactation for heifers and cows should be studied and that period lengthened as far as may be profitable. The calves which should represent, each year, greater possibilities and bigger profits should be carefully fed and prepared for the heavy demands which will later be made upon their constitution.

"In discussing the last affinity, feeding of dairy cows, we touch upon a

In discussing the last affinity, feeding of dairy cows, we touch upon a vital question. The problem as to where steam coal may be best secured and the power of the product of different mines to produce steam is demanding much attention on the part of engineers on the prairies. Unless good coal may be secured the maximum work of which the engine is capable cannot be delivered and reduced to acres ploughed, bushels threshed, or miles covered. The engine, failing to do its work, results in a loss of time. The skilled labour necessary to its operation is not as productive of results as if the fuel fed the engine had been of the highest class.

"The dairy cow represents skill in breeding, expense in housing, and thought and application in the management. If the fuel fed to her—which

she burns and transforms into more condensed form is not of the highest class, the skilled labour which is necessary to develop and handle such a special purpose animal does not produce the greatest returns of which it is capable. We have in Alberta a good range of feed stuffs. We have among the grasses brome and western rye, timothy and blue grass, red top and native grass. Among the legumes alsike clover, red clover and alfalfa. have mangels and carrots. We can produce large crops of rye for pasture or to cure for green feed. A mixture of peas and oats may be successfully and profitably grown and cut shortly after the blossom stage and before the kernel has formed to any great extent, and cured for hay. This crop gave this year on the Experimental Station, a yield of slightly more than four tons per acre as an average over eight acres, and valued at \$10.00 per ton produces a profitable crop and can be fed at that price at a profit. The cost of operation runs about \$14.00 to \$15.00 per acre so that the green feed costs about \$4.00 per ton in actual cost of production charges. The yield of alfalfa which we secured last year was two tons, sixteen hundred and sixtyfive pounds which cost about \$2.00 per ton to put in the barn, not including manure charge which would bring it to about \$2.25. It costs us to put our roots in the root cellar about \$4.00 per ton for the crop we have secured during the past four seasons. I believe that the land on the Experimental Station which has been producing grains for many years, grows stronger through the application of barnyard manure that we will be able to increase the average yield of roots which has only been about twelve tons per acre. The cost of operation amounting at present to about \$48.00 will not be greatly increased with the increase of yield. Referring to the question as to whether alfalfa may be successfully grown in all parts of central Alberta, I have before me a number of letters which go to prove that in the opinion of many men who have tried alfalfa that it is a safe and sure crop. One gentleman says that he made two cuttings in 1910 getting three and one-half tons per acre, that in 1911 his first cutting was two and one-half tons per acre and later this acre carried twelve Holstein calves and the writer says: "It made the calves grow." Another gentleman says that the product of one acre fed one cow for six months and that during that period this cow produced 521 lbs. of butter. He gives it as his opinion that alfalfa can be grown on large areas. Another gentleman says that he has not had good success with his first trial but that in his opinion the variety was not hardy and through the list of these letters, of which there are a good number, there is not one man who says that in his opinion alfalfa is not a safe crop. With such a range of crops as I have named we are able to secure that combination of which the letter we first gave as the affinities of feeding "V," "P" and "Q" which stand for variety, palatability and quantity.'

A brief but interesting discussion followed Mr. Hutton's address.

SEEING FINE DAIRY HERDS.

Although the weather was somewhat stormy in the forenoon of the second day of the convention, the majority of the delegates gladly accepted the opportunity of visiting by motor car the farms and fine dairy herds of Messrs. C. A. J. Sharman, Michener Bros., and A. H. Trimble. These gentlemen personally conducted the party through their stock barns and gave many interesting particulars about the breeding and performance of the principal animals.

The large party of visitors greatly appreciated the refreshments served at the hospitable home of Mr. and Mrs. N. Michener.

The closing session of the convention was held in the afternoon and the Dairy Commissioner addressed the delegates on the subject: "How can a Creamery Encourage and Promote the Dairy Interests of the District in which it is located." He said:

"By way of introducing what should be a mutually helpful discussion, I shall outline briefly what seems to be the present condition of and outlook for, the dairy business. I shall also suggest a few directions in which I believe all the creameries can materially encourage and promote the dairy interests

of the districts in which they are located, bearing in mind the two points of contact referred to in my address yesterday, namely the market on the one hand and the patrons on the other. I say all the creameries, knowing that there are still some which are not in these respects as successful as they would like to be or ought to be. At the same time I am very pleased to acknowledge that we have a number of splendid creameries which have become successful public service institutions by reason of certain qualities in their management which we shall discuss a little later, qualities that have stood the test in all departments of modern business.

"We showed yesterday that while the creamery butter output for last year was about 10% greater than that of 1910, the increase in the milk production during the year was largely required for direct consumption in the form of milk and sweet cream. In view, however, of the general increase in both size and number of dairy herds in Alberta, there can be little doubt that it will be a matter of but a comparatively short time when the demand for milk and cream for direct consumption in our larger centres of population will be met by a sufficient supply from a much smaller area of country than now. Then the available surplus of milk and cream will find its way to the creameries and cheese factories, local or central, which can give the farmer the best returns and the most satisfactory service. As the demand for home made butter is not likely to increase beyond purely local requirements, we shall find that a steadily increasing proportion of our milk production must find its way to the market in the form of creamery butter.

"for some time to come, however, the creamery butter production of the province, and, in fact, of all the western provinces will fall considerably short of the requirements of the constantly growing local markets; large quantitles of butter will, therefore, be brought in from other points in Canada and elsewhere. It is a matter of common knowledge, for instance, that a large quantity of creamery butter has been imported into Canada from far away New Zealand and shipped into all the western provinces during the past few months, in order to satisfy the consumptive demand of these markets. It is also a matter of common knowledge that the butter imported from New Zealand has been of excellent and uniform quality.

"What does this mean to the creamery interests of Alberta?

"It means among other things that the western markets will be able to take care of our increasing butter production for some time yet, so there need be no fear of over-production; it means the western markets are becoming more competitive every year and that the competition for the best consuming trade will be conducted to an increasing degree, on a strictly quality basis.

"Where can we find a more promising outlook and encouragement for the creamery business than here? We have large markets, and quality markets, right at our doors.

"This being so, the management of every one of our creameries will be well advised in making every effort to cultivate this market, and thereby promote not only their own business interests but also the dairy industry generally.

"In the expression 'Management of our Creameries' I include every person that enters into the handling of the product of a creamery from the time the cream is received from the patrons till the finished product is sent to the market.

"The ultimate market, made up of numerous consumers, draws to itself, through the channels of a more or less highly developed and efficient organization of commerce and transportation, the product that best suits its needs and purchasing pow€r, whether that product is to be drawn from the immediate vicinity of the market or from distant parts of the earth. In this process the producer or the manufacturer who at any given time is best able to meet the consumer's need as to quantity and quality, and his purchasing power as to price, will secure the business.

"How will the creamery industry of Alberta meet this situation?

"There are certain outstanding qualities which characterize the management of any truly successful business institution, qualities which should characterize every creamery manager who wishes to become truly successful in his relations with the market, with his patrons and his competitors in business. These qualities may be grouped under the two terms, integrity and efficiency.

"Integrity stands for uprightness in mutual dealings, for 'the square deal.' Efficiency stands for ability, energy and co-operation for good management.

"Integrity in the market place demands from a creamery, as from any other manufacturing agency, goods as represented both as to quality and quantity.

"Integrity demands sixteen ounces to the pound. This applies particularly in the case of small packages, which are likely to eventually reach the consumer in the original form, such as one-pound prints.

"We hear, not infrequently, and we often read in the public press, bitter complaints from both dealers and consumers, of short weight 'pound-prints' of butter put up in dairies and creameries.

"The dealers who buy the butter in large lots are usually able to protect themselves against the 'shortweight artist,' but the majority of consumers have not the facilities to accurately check the weight of the butter they buy in small lots. They have to trust the integrity of the vendor for just weights and values. The creamery, in common with any other legitimate business, aims to secure a profitable and permanent market for its products and such a market can be retained only by honest dealings, sixteen ounces to the pound and goods as represented.

"In relation to the patrons of the creamery, integrity demands just weights and tests and clear, business-like statements of the products handled for them.

"We all know that it is not always an easy matter to satisfy all patrons that they are receiving correct weights and tests at the hands of the creamery management but if we avoid any air of business secrecy, which is sometimes noticed hovering around a creamery, we shall be well on the way to gain the confidence of all our patrons. Some creameries impress upon their patrons the fact that they are welcome visitors at any time, free to see the weighing and testing of their cream, others have gone so far as to invite committees of patrons to visit the creamery specially on testing days so they may become thoroughly familiar with both the principles and the practice of sampling and testing of milk and cream. Dissatisfied patrons are usually asked to act on such committees and urged to attend, as in most cases their dissatisfaction is due to a lack of knowledge of how the work in the creamery is conducted. The mere fact of the patrons being given to understand that the creamery is a wide open institution to them at all reasonable times, will do much to disarm suspicion and inspire that confidence which should exist to a marked degree between the patrons and the management of a creamery.

"Regarding our competition in business, integrity demands that we do not stoop to any act of misrepresentation in our desire to increase our own patronage by 'switching' some of his. If we have good reason to believe that we can serve any of his patrons better than he can, or does, himself, then we simply go to them with a straightforward, clean cut business proposition and in so doing take no unfair advantage of any patron's lack of knowledge of the more technical details of the creamery business nor of the temporary absence of the other fellow.

"We should remember that human sympathy is generally with 'the under dog.' This humble term may be justly applied in a figurative sense to the competitor who is unable through absence, to defend himself and his business dealings.

"Efficiency stands for general ability, for mastery, and in a creamery involves economical management, skilled work and good salesmanship.

"As our creamery industry grows, as competition for patronage becomes keener among individual creameries and as the patrons become better acquainted with the details of the creamery business, the profit of operating must be sought largely through economical management, through the elimination of waste. This is, I regret to say in several creameries an unexplored territory. As samples of sheer waste I may mention a few of the more common cases. Packing materials of all kinds are often rendered useless through bad storage and contact with dirty floors, ice is wasted through badly constructed refrigerators, fuel is wasted through bad firing under dirty boilers, badly bricked in, through pounding engines and leaky valves and joints in the steam plpes, through needless running of the engine during a day of poorly planned work.

"If large industrial establishments run their business in the loose shipshod way that some creameries run theirs they would soon land in the hands of the receiver.

"Sometimes we find considerable waste of cream and butter in the course of a day's work in the creamery, through cream cans and vats not

being properly rinsed out and by allowing butter granules to run away with the buttermilk or wash water from the churn.

"The patrons are quick to notice such waste around a creamery and are very likely to lose confidence in the management. Who could blame them if they do.

"In a single day these losses may not be very great but they will amount to a good deal in the course of a season, and the cumulative effect of the small daily wastes that occur through bad management is moreover the loss of the confidence of the patrons. Loss of confidence means loss of business.

"Skilled work: The butter maker-manager who is worthy of the name always aims to turn out a quality product which will sell in the best markets and give 'satisfaction with every piece.' In order to do this he must study the raw materials which he works with, he must study the best working methods, his finished product and the requirements of the market to which he caters and afterwards put all these factors in the right relation to one another, so as to secure the desired results.

"Such a study involves careful and often hard, sustained, patient work.

"Fortunately in this day of excellent and low priced technical literature a butter maker can get the benefit of the experience and practice of many other workers in the same field. He is not obliged to 'work out his own salvation' entirely when many expert advisers can be consulted on practically every phase of the business at any hour of the day, in agricultural, trade and dairy journals, books, departmental reports and bulketins now available by the score.

"The department is always at the service of the creamery and dairy man. Expert instructors are in the field throughout the year and, as you know, visit the creameries from time to time. Their experience is at the disposal of the butter maker and manager and their advice may be had for the asking.

"The department also conducts short course schools for creamery buttermakers where the practical work as well as some of the principal problems and difficulties of the dairy and creamery are taken up and dealt with in a practical way.

"Information is always available for the person who will look for it.

"Good salesmanship: We are told that well made is balf sold.' This applies in a special sense to a commodity such as creamery butter. Salesmanship involves a knowledge of the requirements of the markets to which we wish to cater; it also involves a knowledge of the channels through which that market can best be reached and most satisfactorily served.

"While every creamery desires to secure a quality market for its butter production, it is but natural that the patrons should in turn, be furnished with a quality market if they are willing to supply a good grade of cream. The grading of the cream and the premium system of paying for it which was adopted at the beginning of the season 1910 by the department in cooperation with a number of creameries in the province has proved conclusively that the patrons respond promptly to any reasonable reward offered for special quality, just as the butter market generally responds to quality in products by willingly paying a good price for it.

"The management of the creameries may in this direction exercise their salesmanship and thus perform very valuable service between their patrons and the market. In performing such service they will, themselves, participate in the gains.

"Our discussion so far has been confined to the buttermaker-manager's activity at the creamery, his place of business. There is another side to his work not less important, which merits more than passing reference, namely his activity in the field. In using the expression 'field.' I have in mind the territory somewhat clastic in extent from which the cream supply for his creamery is drawn. Like the management of any other commercial Institution, every creamery manager desires to increase the volume of business, because up to a certain point, other factors being equal, an increase in business means an increase in profits.

"The business of a creamery can be increased (1) by getting more patrons to supply cream to it; or (2) through a larger cream production by its regular patrons.

"There are several ways open to a creamery manager to secure more patrons.

"He may secure as patrons farmers of his district who are just beginning to go into dairying; he may go after some of those in his district who are

making butter on the farm for the general market or he may persuade patrons

of a competing institution to patronize his own.

"The first and second classes of prospective creamery patrons that I have just named, usually require considerable persuasion to change from a method which they have been following for some time, perhaps for a long time. Working methods followed for a sufficiently long period become a habit and we all know that old habits are not easily changed unless there be some very strong reason for a change. While these people must be persuaded that it is to their advantage to change their methods, they also have to learn their part of the creamery business. They have to learn the 'why and the how' of things in that business and this means, often, misunderstandings, unless the creamery seeking their patronage makes good all promises made and extends to their new patrons the facilities we referred to a few minutes ago in our discussion of integrity at the creamery.

"In the field the creamery manager can do a good deal to encourage and stimulate interest in the dairy business. Aside from giving his patrons what we have termed a quality market for their cream or milk at his creamery he can help them to make their dairy operations more profitable by encouraging the systematic use of weigh scales and the Babcock tester. It is admitted upon every hand that in all herds some cows are better and more economical producers than others, but these can be discovered only by means of the scales, tester and a carefully kept record of their yields. This work might well be helped along by the creamery manager who desires to co-operate with his patrons and it ranks perhaps equal in importance with the principle of paying for cream upon a strictly quality basis. I know of creameries that have offered to test, free of charge, and at any time, all samples of individual cows' milk brought in by their patrons.

"When a dairyman has learned to discover the most profitable animals in his herd, he is well on the road towards the building up of a profitable herd by suitable care, feeding and breeding. As Mr. Hutton dealt so ably with these points in his address last evening I shall not attempt to discuss them now.

"The creamery manager can help circulate among his patrons some of the bulletins and other helpful literature that is issued from time to time

bearing upon the various phases of the dairy business.

"He can help to advertise, arouse interest in and secure a large attendance of his patrons at the public meetings and short courses provided by the department of agriculture from time to time for the discussion of dairy and kindred subjects. It is safe to assume that no one engaged in dairying knows all about it and that a more intimate knowledge of their business makes them better dairymen and better creamery patrons.

"He can also do something to promote the social side of his patrons by helping to arrange occasional district picnics in summer or other social gatherings in winter. On such occasions people can get better acquainted

and learn to appreciate one another.

"In fact, the person who is imbued with the true spirit of service can find many occasions to express that spirit. He will find ample opportunity to demonstrate the motto of a prominent business builder that 'he profits most who serves best.

"A creamery whose management is characterized by integrity, efficiency and a desire to serve is a public service institution in the true sense of the term, an important factor in the development of the dairy industry generally

and a benefit to the district in which it is situated.

The discussion which followed the commissioner's address covered a good deal of ground and the concensus of opinion seemed to be that there was yet a good deal of field work that the creameries could do with

advantage to themselves and to their patrons.

The final address of the convention was given by Mr. E. Michener, M.P.P. He complimented the assembled dairymen upon the substantial progress that was being made in the dairy industry of the province. He said that the general pursuit of diversified farming would lay a solid foundation for the future greatness and general prosperity of Alberta. Mixed farming is the backbone of any agricultural community and dairying is the backbone of mixed farming. Dairying properly conducted is

interesting as well as profitable work. It gives results. The effect of judicious feeding is shown in the milk pail and the results of careful breeding are shown in the production of better animals.

He had found that dairy eows respond to care and good treatment better than any other animal on the farm and while the great majority of the cows in the province are not of the dairy type he believed that in many of them the yield of milk and butter could be considerably increased by a little more care and attention on the part of their owners. This has been discussed in a very able way by Mr. Hutton in his address of the previous evening.

Mr. Michener saw great possibilities in store for the people of Alberta, rich as the province is in natural resources, and it is the privilege of the dairymen to do their part in helping to make Alberta great and prosperous.

In conclusion he expressed his pleasure in meeting so many representative dairymen of the province and wished them every success in their undertakings.

The dairy commissioner closed the convention thanking, on behalf of the department of agriculture, the several speakers who had assisted at the convention and the delegates for their attendance and interest in the proceedings. He hoped that they had each received some information or inspiration which they could take home and disseminate among their fellow dairymen in the home districts.

Votes of thanks were passed to the citizens and to the board of trade of Red Deer for their generous hospitality to the delegates, and to the press for the splendid help it is giving to the dairy interests of the province.

VII.—JUDGING AT AGRICULTURAL EXHIBITIONS.

The dairy branch supplied judges for 37 agricultural exhibitions during 1912, placing the awards in the "dairy" and "domestic" classes. At a number of points the dairy judges placed the awards in several other classes as well, such as "poultry," "grains and grasses" and "roots and vegetables."

The exhibitions at Calgary, Cardston, Manville and Red Deer conducted a "milking test" on their grounds, extending over a period of one to two days. The animals entered for the test ranged from 3 to 13. The "milking test" is a feature that is not only likely to be continued by the associations just named but will also be taken up by others, especially in the more advanced dairy districts.

VIII.—Dairy Instruction Work.

All the creameries and some of the cheese factories have been visited by the dairy instructors once or oftener during the operating season. The inspectors' reports show that with very few exceptions the sanitary conditions of the factories were good and satisfactory.

SHORT COURSE SCHOOLS.

Instruction and demonstrations in approved home dairy work and methods were given by members of the dairy staff at the short course schools conducted by the department at Claresholm, Olds, Gleichen and Stony Plain. Special attention was given at the several schools to the requirements of the most remunerative markets for dairy products within reach of the people there.

MIXED FARMING SPECIAL TRAIN.

A baggage car on the mixed farming special train, which made a tour of the province visiting 60 points during October and November, was fitted up for lectures and practical demonstrations in dairying. The "dairy car" was generously patronized at all points. In a number of cases the talks and demonstrations by those in charge had to be repeated because there was not enough room in the car to hold at ouc time the number of people who were interested.

A talk was given at each point on the production and care of clean, wholesome milk as an essential to successful dairying. Referring to the marketing of dairy products, various types of butter were exhibited to illustrate how that commodity sometimes reaches the general market. The "horrible example" in this case being a package (a filthy soap box) of home made butter put up in prints and rolls and shipped to one of the

wholesale houses in Calgary by a "country storekeeper."

It was pointed out that the producers of butter should always be interested in seeing their product reach the market in the best possible condition; that it should not be a matter of indifference to them as to whether the local mcrchant, to whom they sell it, afterwards sends it away to the market in a nice clean box or tub, well packed, or in a dirty soap box, candy pail or other nondescript receptacle. Every producer should endcavour to follow his product in imagination at least as far as possible on its journey towards the ultimate market, the consumer, and whenever practicable help to either improve or to eliminate the agency or agencies that are responsible for undue deterioration to the quality and market value of the product on its journey to the consumer.

SHORT COURSE FOR CREAMERY BUTTERMAKERS.

Arrangements were made for the use of the Red Deer creamery as a short course school for creamery buttermakers. A class room was fitted up in the building.

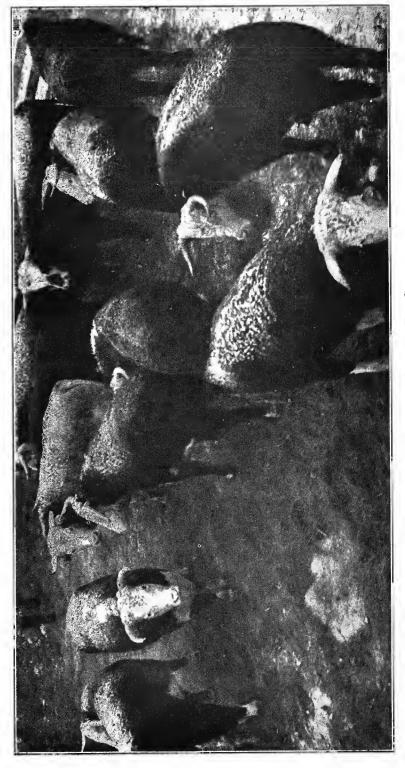
The following announcement was mailed to all creamery managers and buttermakers in the province, whose names and addresses we had, outlining the scope of the course:

"The Department of Agriculture offers two courses of instruction to creamery buttermakers at Red Deer, Alberta, commencing on Monday afternoon the 18th of March.

"Each course will last two weeks. In this way a buttermaker who expects to commence his season's work by the beginning of April may attend the March course and anyone who is not free to do so before the first of April may attend the course beginning that date. The lectures in the class room will be completed during the first week of each course leaving the second week largely for review and practical work for students who wish to specialize in any of the departments of the course.

"Our market conditions—competition on every hand—make it imperative that the creamery managers, buttermakers and patrons fully understand both the technical and the practical side of their business. 'He profits most who serves best.' The work of the short courses in dairying is designed to assist those who want to 'serve best' and it is free of charge. A general invitation is extended to the creamery buttermakers of the province to take advantage of the services of this course. Following is a brief outline of the work that

will be taken up:
"(A) In the class room: Lectures will be given on chemistry and bacteriology in relation to dairying; the principles underlying creamery organization; bookkeeping and general management; markets and marketing of dairy products; dairy herd management, etc.



No 4.—First Prize Carload Fat Steers.

Fat Stock Show, Calgary, 1912. And First Prize Carload of Fat Steers at the Fat Stock Show, Toronto, 1912.

Owned by S. Downie & Sons, Carstairs.

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- "(B) Practical work: The Red Deer Creamery management has generously placed the creamery and equipment at the disposal of the department for dairy school purposes and instruction and practical work will be given on each day in the following departments:
 - "(1) Testing room: The sampling and testing of milk and cream for butter fat and acidity and the testing of butter for moisture and salt contents. Complete instructions will be given in the use of the Lactometer and the Babcock Test, the acidimeter and aikaline test, the Mitchell-Walker, the Geldard, the Farrington and the Irish Moisture Tests.
 - "(2) Buttermaking room: An ample supply of milk and cream is assured and practical instruction will be given in this department in the pasteurization of milk and cream, in preparing pure culture ferments for cream ripening, in the grading and scoring of cream and butter; in churning, working and packing of butter; in creamery sanitation, etc.
 - "(3) The engine room: The care and handling of boilers and engines. Pipe fittings, soldering and general repair work will be fully explained and demonstrated by the instructor in charge.
 - "(4) The Bookkeeping department will present a complete yet simple accounting system for creameries, including patrons accounts, stockbook, cash and general ledger. Specimen forms of these will be given to each student so he may become familiar with all details.

"Buttermakers are invited to attend a whole course, but if this is impossible anyone attending for a shorter time will get the greatest possible benefit from the time spent. The students will be expected to take in the tractical work under the direction of the instructor in charge of each department. Special attention will be given to scoring and grading of cream and butter. A number of typical samples will be provided for the purpose,

"The regular instructors of the school, and their subject, are as follows,

"The Dairy Commissioner, director of the school, deals with creamery organization, management and economics, markets and marketing, dairy iegislation, etc.

"Prof. A. Lehmann, University of Alberta, chemistry.
"Dr. D. G. Revell, Director Provincial Laboratory, bacteriology.
"Mr. G. H. Hutton, Superintendent Experimental Farm, Lacombe, dairy herd management.

"Mr. H. S. Pearson, dairy instructor, buttermaking. "Mr. Geo. W. Scott, dairy instructor, testing. "Mr. J. R. Flan, engineer, boiler and engine, etc."

There was a good attendance at both courses and we were fortunate in securing the assistance of Prof. Lehmann, Dr. Revell and Mr. Hutton. The text of one of Mr. Hutton's addresses will be found elsewhere in this report.

1X.—Public Meetings.

The writer and the dairy instructors, Messrs. H. S. Pearson and Geo. W. Scott, attended and addressed special meetings at Ferry Bank, Macleod, High River, Claresholm, Nanton, Bergen, Elkton, Spring Lake, Wetaskiwin, Erskine, Ryley, Rising Sun and Sunnydale on creamery management, grading of cream, and payment according to quality, cooperative dairying, etc.

At the request of Mr. J. A. Ruddiek, Dairy and Cold Storage Commissioner for the Dominion, the writer delivered an address on "Grading of Cream," before the annual convention of the Dairymen's Association of Western Ontario, held at Ingersoll in January last.

X.—Correspondence.

During the year 1,726 letters were received at this office and 2,755 sent out.

XI.—ACKNOWLEDGMENTS.

I cannot conclude my report without recording my personal appreciation of the generous consideration which the recommendations and work of this branch has received at the hands of the minister and his deputy, and in relation to our commercial work, at the hands of the treasury department.

I also desire to acknowledge aud commend the conscientious and faithful work done by my co-workers in this branch—the instructors in the field and the staff at the government cold storage and at the office here. Any success that has attended the work of this branch is due very largely to the hearty co-operation of its workers and the dairy interests in the province generally.

Great credit is due, also, to the public press for the part it is taking in encouraging and promoting better farming and better dairying.

C. MARKER, Dairy Commissioner.

3.—REPORT OF SUPERINTENDENT OF SEED AND WEED BRANCH.

SIR.-

I have the honour to submit herewith my second annual report of the seed and weed branch.

I.--WEEDS.

During the months of January and February 1 attended short courses in agriculture held at Claresholm, Gleichen, Stony Plam and Olds. Lectures were delivered on the subject of weed control and cradication. Mounted specimens of the more serious weeds were displayed for the inspection of those present. Small sample cases containing seeds of the various noxious weeds were also displayed, and the distinguishing characteristics of each pointed out. The farmers showed a marked interest and seemed anxious to become acquainted with the weeds, their seeds and the best methods of holding them in cheek. Much valuable information which will be of use to the department was obtained from the discussions which took place during the meetings.

Owing to the rather dry weather in the early part of the season of 1912, the weeds did not get a very serious start until the latter part of the season, except in the ease of such weeds as stinkweed and tumbling mustard, growing in land seeded to winter wheat or upon land which was seeded to spring grain. As stinkweed is a winter annual, that is, a plant which starts growth in the fall and lives through the winter, and therefore begins to blossom and produce seed very early in the spring, it was thought necessary to start inspectors to work in districts infested with stinkweed in the southern part of the province as early as May 5th. This was followed up and in most districts a considerable amount of good was accomplished. The same method was adopted throughout the season depending upon the weeds with which the various districts were infested. In the earlier southern districts the inspectors were started to work earlier than in the later districts of the north.

Though such weeds as Russian thistle made a very rank growth during the latter part of the season owing to the dry weather, quite effective work was done in most districts by the farmers, in holding them in cheek.

The work of the inspectors and the department was for the most part educational. In very few cases was it found necessary to enter prosecutions or employ men and teams to destroy weeds. This was only necessary on vacant lands which were not being farmed and when the owners could not be reached. A different policy was adopted in regard to these cases than in other years, when the practice was to plow and cultivate the land throughout the summer thus entailing a great expense upon the department and in cases where the land was not cropped the succeeding summer, the weeds grew more luxuriantly than ever. The policy this year was to mow the weeds early before the seed was formed or in eases that were too far advanced, the weeds were first mowed and then raked and burned. The result of this plan is a greatly lessened expense, and these vacant lands gradually become covered with native grasses and the weeds are choked out.

Owing to the great demand for information regarding the identification and eradication of weeds, it was thought necessary to prepare a bulletin dealing with the more common weeds of the province and the best means of destroying them. This bulletin was prepared during the winter by myself and Mr. C. E. Lewis, Superintendent of Fairs and Institutes and formerly Chief Weed Inspector for the province. An effort was made to make this bulletin as practical as it was possible to make it. 20,000 copies were printed and 10,000 have already been sent out in response to requests, to farmers, public and normal schools, agricultural colleges, departments of agriculture, etc. This bulletin has proven very popular and is filling a long felt want in this province.

SPRAYING EXPERIMENTS.

During the summer of 1911, experiments were conducted with iron sulphate for the purpose of destroying wild mustard or charlock, and as stated in the report of 1911, with a fair degree of success. These experiments were repeated at Olds this year, except that they were performed earlier in the season. The result was that practically all the mustard was destroyed. The solution was made of 100 pounds of iron sulphate to 50 gallons of water. The mustard sprayed was growing in a field of oats and was just coming out in blossom when sprayed. An examination about 10 hours after the spraying was done showed the mustard plants badly blackened and wilted and the oats unharmed. This was due to the hairy nature of the mustard leaves which retained the spray, while the smooth surface of the oat leaves allowed the spray to run off before its caustic nature affected them.

On account of the serious nature of tumbling mustard in portions of southern Alberta, it was decided to try the effect of iron sulphate spray as a means of destroying it. The iron sulphate was supplied by the Canadian Steel and Wire Company of Winnipeg, free of charge, and a spraying outfit was kindly loaned by the Coekshutt Plow Company of Calgary. A five acre plot was marked off and sprayed in strips leaving a strip unsprayed as a check. The solution was applied on one strip at a strength of 100 pounds of iron sulphate to 50 gallons of water and upon another at the rate of 150 pounds to 50 gallons of water. These plots were examined fifteen hours after the spray was applied. There was quite a marked difference between the sprayed and unsprayed plots. The sprayed plots were very much blackened and the lower leaves were badly wilted. Plants that had reached the blossom stage however, were apparently uninjured except that the lower leaves were blackened. The plots were again examined three days later and most of them seemed to have recovered to quite an extent from the effects of the spray. The younger plants which were growing in the form of a rosette close to the ground, were sending up stalks from the centre and though the bottom leaves were destroyed the flower stalks appeared to be quite healthy. The plots were examined at intervals throughout the summer and the great majority of the plants produced seed. The plots sprayed with the stronger solution were not affected to a much greater extent than those sprayed with the weaker solution. From our observations we came to the conclusion that from this experiment at least iron sulphate solution was not effective in destroying tumbling mustard. There were several eauses, however, which might have affected the result. The plants sprayed were growing on stubble land and the majority of them had passed through the winter as winter annuals and were tongher than plants which had started in the

spring. A large number were already in blossom and the smooth blossom stalk did not retain the spray. We expect to continue these experiments next year on spring ploughed land which is being cropped. The plants should be much more tender and thus more susceptible to the action of the spray. However, the results of the year's work would not lead us to expect very satisfactory results.

The following is a list of the weed inspectors employed during the season of 1912:

Alred, J. G	
Blue, Oliver	
Barrett, Milton	
Brown, J. C	Lethbridge.
Britain, W. J	Castor.
Bowtell, H	Frog Lake.
Boileau, F. X	Duvernay.
Cardiff, G. M	Calgary.
Callaway, E. J	Cochrane.
Capron, Jos	
Drollinger, J. W	
Despins, L	
Ellis, John	
Ferguson, C. A	Cardston.
Fyfe, J. T	Islay.
Ferris, Robert	Hayter.
Giles, William	Munson.
Haines, L. A	.Turin.
Hutton, G. H.	Lacombe.
Hall, G. B	. Cayley.
Hogan, Ed	
Hull, Thomas	. Leduc.
Jaffery, Peter	. Olds.
June, Robert	
Kelly, W. J	Crossfield.
Lane, R	
Lee, H. W	Gleichen.
Mackintosh, H	Macleod.
Mohan, T. D	.Warner.
Mohan, T. D	Seven Persons.
Miller, W. H	. Carmangay.
Mercer, J	
McGowan, R. J	Killam.
McComb, L	·Lakeview.
McArthur, D. K	· Olds.
Nelson, Frank	Bruce.
Orlecki, S	Duvernay.
Smith, J. D	. Edmonton.
Smibert, G. H	. Elkwater.
Slauson, D. K	Burdett.
Sproule, O. B	Orbindale.
Smith, A. M	. Barney.
Steckle, N	
Tate. Thomas	Bittern Lake.
Ulmer, Ludwig	Stony Plain
Van Orman, R. A	. Taber.
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II.-SEED BRANCH.

The work of encouraging the production of pure seed grain was taken over from the Dominion Department of Agriculture in the month of November. Since that time a great deal of work has been done by way of locating sources of seed supply, answering correspondence, holding seed grain fairs and field grain competitions.

SEED FAIRS.

During the winter twenty-eight seed fairs were held, the entire number of them being held before the Provincial Seed Fair. The object of these fairs was to provide a means for the dissemination of seed of good quality. Each sample was marked after the judging with a tag showing the number of bushels for sale and the price per bushel. A good deal of seed was sold locally in this manner, and in order to give greater publicity, a bulletin was issued giving the names of the various prize winning grain at each fair, the amount each man had for sale and the price per bushel. Seven thousand copies of this bulletin were distributed throughout the province and were the means of many of the exhibitors disposing of their grain at remunerative prices. The following is a list of the agricultural societies holding seed fairs in 1912:

CIRCUIT NO. 1 Granum, Stavely. Okotoks. Taber. Cardston, Magrath.

CIRCUIT NO. 3 Lacombe. Innisfail, Bowden. Olds Milnerton. Trochu.

Munson.

CIRCUIT NO. 2
Vegreville.
Innisfree.
Vermilion.
Lloydminster.
Viking.
Provost.
Sedgewick.
Killam.
Daysland.
Irma.
Tofield.

CIRCUIT NO. 4
Langdon.
Stony Plain.
Plncher Creek.
Leduc.

The following men acted as judges at these fairs and delivered addresses on subjects such as "Soil Cultivation," "Prevention of Smut" and the "Eradication of Weeds":

J. Cook, Cochrane.
H. Mackintosh, Macleod.
W. J. Glass, Macleod.
F. S. Grisdale, Lethbridge.
A. Lougheed. Bowden.
J. D. Smith, Edmonton.

A suggested set of rules and prize list was sent to each secretary holding a seed fair and was in most cases adopted. This was as follows:

RULES GOVERNING SEED FAIR.

- 1. All seeds entered for competition must have been grown by the exhibitor in the year 1911.
- 2. No seed shall be admitted for competition for prizes unless the quantities of seed for sale, as per sample exhibited, are at least 25 bushels of wheat, 50 bushels of oats, 25 bushels of barley, 25 bushels of rye, 10 bushels of flax, 5 bushels of brome grass, timothy, red elover, alfalfa and rye grass, 10 bushels of peas, 25 bushels of potatoes.
 - 3. In classes 1-11 inclusive 1 bushel of seed must be shown; in 12-

18 ½ bushel. All exhibits of seed shall be held to be representative of

the total quantity of such seed offered for sale by the exhibitor.

- 4. Small samples of every exhibit will be taken and held by the society in charge of the secretary for exhibition purposes. These samples may be produced as evidence in the event of any dispute arising from the claim that the seed exhibited was not representative of that afterwards sold.
- 5. No premium shall be awarded on exhibits that contain impurities which, in the opinion of the judge are of a noxious nature.
- 6. No exhibitor shall be allowed to exhibit more than one sample of same variety in any class.
- 8. All samples of seed must be labeled after judging with the name and address of the exhibitor, the name of the variety, the amount of seed for sale and the selling price.
- 9. In case of dispute a statutory declaration, that the above rules have been complied with may be required from each or any exhibitor of seed.
- 10. All exhibits for competition for prizes must be delivered at the town hall.....not later than.....a.m. on date of fair, and shall not be removed until the close of the fair.
- 11. No exhibits or sacks or other coverings containing them will be admitted with name, marks or initials thereon and all must remain closed until judging commences.

PRIZE LIST.

The following prizes will be awarded on the best samples of seed exhibited in accordance with the rules governing the fair:

	CLASS	1	2	3	4
1.	Marquis and Red Flfe	\$8	\$ 6	\$4	\$ 2
2.	Spring wheat, any other hard variety	-8	6	4	2
3.	Fall wheat, any hard variety	8	6	4	2
4.	White oats, long	8	5	2	
5.	White oats, medium	8	5	2	
6.	White oats short	8	5	2	
7.	Barley, two-rowed	6	4	2	
8.	Barley, six-rowed	6	4	2	
9.	Rye	6	4	2	
10.	Peas, field	8	5	2	
11.	Flax seed	6	4	2	
12.	Brome Grass seed	4	2	1	
13.	Timothy seed	4	2	1	
14.	Rye Grass seed	4	2	1	
15.	Red Clover seed	8	5	2	
16.	Alfalfa seed	8	5	2	
17.	Potatoes, white	5	3	2	
18.	Potatoes, red	5	3	2	

III .- FIELD CROP COMPETITIONS.

During the summer twenty-four agricultural societies were induced to take up the work of holding standing field grain competitions. There were approximately 250 entries, making a total of 2,500 acres which were cared for with the object of winning the prizes offered. A great deal of interest was taken by each society and a large amount of seed grain of

excellent quality was produced. In most cases the judges reported the grain to be free from mixtures of other varieties and weeds. The following is a list of the societies which undertook the work and the amount spent in prizes at each:

Where Held.	Amount of	Prize Money.
Trocbu		50.00
Sedgewick		50.00
Red Deer	20	00.00
Stettler		85.00
Macleod	1	70.00
Leduc		85.00
Mllnerton	10	00.00
Munson		57.00
Three Hills	1	00.00
Edgerton	1	50.00 _j .,
Mannville		75.00
Stony Plaln	1	50.00
Klnnoull	1	00.00
Vegreville		00.00
Wabamun		4 5.00
Taber		70.00
Medicine Hat		50.00
Carmangay		00.00
Innisfail		65.00
Bowden		77.50
Killam		65.00
Lloydminster		00.00
Provost	•	50.00
Lacombe		75.00
Total	\$26	69.50

The following circular was supplied free to all societies:

To stimulate a greater interest in the growing of first class seed grain.

To encourage the practice of growing seed for next year's crop separate from the main crop, using only the best obtainable seed, sowing on the cleanest and best prepared land, allowing It to thoroughly ripen and threshing and storing separately.

To obtain pure grain, i.e., free from other varieties, the presence of which can best be detected when the grain is growing.
To encourage the use of seed from heavy yielding strains.

To promote the growing of seed from clean, vigorous crops of uniform stand and with bright stiff straw.

To encourage careful, intelligent farming and the pro-

duction of grain free from weed seeds.

To encourage careful observation and careful hand weedlng of the farm seed plot.

1. Competitions shall be confined to fields of wheat, oats or barley, or all three provided separate prize lists are offered for each. The prize lists may be divided into separate classes for winter and spring wheat, or for irrigated and dry farming.

2. Prizes to the amount of not less than \$100 shall be

3. Fields entered for competition shall consist of not less than ten acres in a block and shall be situated within 20 miles of the beadquarters of the Agricultural Society with which entry is made. The ten acres entered for competition must be selected before the arrival of the judge, and staked out in such a manner that the judge will be able to distinguish the block entered without difficulty. Neglect to do this will be considered a disqualification. In order to avoid mistakes and to secure information concerning methods of improvement, competitors should accompany the judge to the field.

4. Each competitor shall enter with one Agricultural Society only and must be a member of that Society. 5. Each competitor shall be allowed to make one entry only in each class, and shall pay an entry fee of \$2 to the Secretary when making entry. The awards will be made by judges supplied by the Seed Branch, Provincial Department of Agriculture, and according to the following or similar scale of points: Suitability of variety......10 points Freedom from other varieties and other kinds of grain......20 Freedom from attack from smut, rust and Apparent yield, considering vigor of growth and uniformity, size of head, stiffness of straw thickness of stand and stage of maturity....30 Total 7. Societies desiring to enter this competition must notify the Superintendent of the Seed Branch, Edmonton, not later than first of June. 8. Entries shall be made on or before July 1st to the Secretary of the Agricultural Society. 9. The Secretary shall mall to the Superintendent of the Seed Branch, Edmonton, not later than July 2nd a statement showing all entries made, arranged in the most suitable driving order for the judge. 10. The first or any prize need not be awarded unless in the opinion of the judge the exhibit is worthy.Agricultural Society To the Secretary: I hereby make entry in the competition for standing fields of seed grain to be conducted by the above Agricultural Society and agree to conform to the rules. Kind of field.... (Wheat, Oats or Barley) Distance from headquarters of Agricultural Societymiles. Name.... Entries must be in the hands of the Secretary not later than Monday, July 1st. The Secretary will mall, not later than July 2nd, a statement giving the particulars contained in all the entries to A. McKenney, Superintendent of Seed Branch, Edmonton. IV.—Provincial SEED Fair. The Provincial Seed Fair was held in Macleod in the town hall on

The Provincial Seed Fair was held in Macleod in the town hall on February the 27th, 28th and 29th. The Macleod board of trade and the agricultural society rendered very material assistance in advertising and making arrangements for the fair, which was very successful in every way. There were 174 exhibitors and 375 exhibits, a considerably larger number than in any previous year.

The following is the prize list with the number of entries in each class:

Class:							
NO. OF ENTRIES		CLASS	1	2	3	4	5
32	1. Winter wheat	any hard variety	\$20	\$15	\$12	\$ 8	\$ 5
4	2 Winter wheat	, any soft variety	15	12	8	5	
31	3. Spring wheat.	Red Fife	18	14	10	6	4
38	4. Spring wheat,	any other good mill-					
	ing varie	ty	18	14	10	6	4
24		*******	20	15	12	8	5
39	6. Oats. Abundar	ice, and other medium					
J.			20	15	12	8	5

7.	Sensation, and other short varieties	18	14	10	6	4
8.	Barley, six-rowed	15	10	5		
9.	Barley, two-rowed	15	10	5		
10.		12	8	5		
11.	Flax seed	12	8	5		
12.		12	8	5		
13.	Brome grass seed	12	8	5		
14.	Rye grass seed	12	8	5		
15.		12	8	5		
16.		12	8	5		
17.		12	8	5		
18.		10	8	5	3	
19.		10	8	5	3	
20.	Identification of weed seeds	8	5	3		
	8. 9. 10. 11. 12. 13. 14. 15. 16. 17.	8. Barley, six-rowed 9. Barley, two-rowed 10. Field peas 11. Flax seed 12. Timothy seed 13. Brome grass seed 14. Rye grass seed 15. Red clover seed 16. Alsike clover seed 17. Alfalfa seed Judging Competition 18. Judging wheat 19. Judging oats	8. Barley, six-rowed 15 9. Barley, two-rowed 15 10. Field peas 12 11. Flax seed 12 12. Timothy seed 12 13. Brome grass seed 12 14. Rye grass seed 12 15. Red clover seed 12 16. Alsike clover seed 12 17. Alfalfa seed 12 Judging Competition 18. Judging wheat 10 19. Judging oats 10	8. Barley, six-rowed 15 10 9. Barley, two-rowed 15 10 10. Field peas 12 8 11. Flax seed 12 8 12. Timothy seed 12 8 13. Brome grass seed 12 8 14. Rye grass seed 12 8 15. Red clover seed 12 8 16. Alsike clover seed 12 8 17. Alfalfa seed 12 8 Judging Competition 18. Judging wheat 10 8 19. Judging oats 10 8	8. Barley, six-rowed 15 10 5 9. Barley, two-rowed 15 10 5 10. Field peas 12 8 5 11. Flax seed 12 8 5 12. Timothy seed 12 8 5 13. Brome grass seed 12 8 5 14. Rye grass seed 12 8 5 15. Red clover seed 12 8 5 16. Alsike clover seed 12 8 5 17. Alfalfa seed 12 8 5 Judging Competition 18 Judging wheat 10 8 5 19. Judging oats 10 8 5	8. Barley, six-rowed. 15 10 5 9. Barley, two-rowed. 15 10 5 10. Field peas. 12 8 5 11. Flax seed. 12 8 5 12. Timothy seed. 12 8 5 13. Brome grass seed. 12 8 5 14. Rye grass seed. 12 8 5 15. Red clover seed. 12 8 5 16. Alsike clover seed. 12 8 5 17. Alfalfa seed. 12 8 5 18. Judging Competition. 18. Judging wheat. 10 8 5 3 19. Judging oats. 10 8 5 3

In addition to the above there were ten special prizes consisting of silver trophies valued at \$100.00 each and one valued at \$125.00, and four cash prizes amounting to \$85.00.

The following is a list of the silver trophies and cash prizes:

Class 21 (10 entries).—Best five bushels of spring wheat, silver trophy, valued at \$100.00 donated by the publishers of the Farm Crops Magazine, Winnipeg.

Class 22 (9 entries).—Best five bushels of Alberta red wheat, silver trophy, valued at \$100.00, donated by the Alberta Pacific Elevator Company of Calgary.

Class 23 (7 entries).—Best five bushels of milling oats, silver trophy, valued at \$100.00, donated by the Calgary and Strathcona branches of

the Brackman-Ker Milling Company.

Class 24 (4 entries).—Best five bushels of six-rowed barley, silver trophy, valued at \$100.00, donated by the Calgary Brewing and Malting Company.

Class 25 (3 entries).—Best two bushels of two-rowed barley, sterling silver trophy, valued at \$125.00, donated by the Canadian Pacific Railway Company. In addition to the trophy the company offers a cash prize of \$15.00 to the winner and \$10.00 as a second prize. A brewing test will be necessary in making awards in this class. The company reserves the right to purchase winning exhibits at market prices.

Class 26 (3 entries).—Best five bushels of Garton's Regenerated Abundance oats, solid sterling silver trophy valued at \$100.00, donated by the Garton Pedigree Seed Co., of Winnipeg. The oats to be grown from seed obtained from this company the spring preceding the Alberta Provincial Seed Fair, and the trophy to become the property of the person first winning it three times.

Class 27 (11 entries).—Best bushel of winter wheat on exhibition, \$10.00 cash; wheat to become property of donor.

Class 28 (24 entries).—Best bushel of spring wheat on exhibition, \$15.00; wheat to become property of donor.

Class 29 (15 entries).—Best bushel of oats on exhibition, \$10.00; oats to become property of donor.

Class 30.—Best 100 pounds of hard wheat, cash prize of \$50.00, donated by Macleod Board of Trade. Competition open to all.

PRIZE WINNERS 1912.

The following is a complete list of the prize winners:

Class 1.—Winter wheat, any hard variety: A. Woolley, Norton, 1st.

(Alberta Red); H. Dimm, Granum, 2nd, (Alberta Red); W. J. Glass, Macleod, 3rd, (Alberta Red); Dan Gillen, Macleod, 4th, (Alberta Red); Leo Pfefferle, Claresholm, 5th, (Alberta Red).

Class 3.—Spring wheat, Red Fife: W. J. Glass, Macleod, 1st; George Wells, Wellsville, 2nd; M. Sanford, Mannville, 3rd; J. A. Hew-

son, Macleod, 4th; E. Strain, Macleod, 5th.

Class 4.—Spring wheat, any other good milling variety: F. A. Adams, Maeleod, 1st, (Marquis); M. Sanford, Mannville, 2nd, (Garton's No. 46); J. Loree, Innisfree, 3rd; A. S. Blackwood, Dc Winton, 4th; E. T. Erickson, Killam, 5th, (Stanley).

Class 5.—Oats, Banner and other long varieties: W. G. States, Morrin, 1st, (Banner); C. Funk, Stavely, 2nd, (Banner); Bowker and Jarvis, Munson, 3rd, (Banner); Thos. O. King, Raymond, 4th, (Ban-

ner); Alex Brewster, Maeleod, 5th, (Banner).

Class 6.—Oats, Abundance and other medium length varieties: John Loree, Innisfree, 1st, (Silver Mine); James Dalgarno, Blondheim, 2nd, (Abundanee); T. H. Lee, Red Lodge, 3rd; E. T. Erickson, Killam, 5th, (Abundanee).

Class 7.—Oats, Sensation and other short varieties: J. E. Vance, Pine Creek, 1st, (Big Four); Arnstead Bros., Stavely, 2nd, (New Century); William Piek, La Pearl, 3rd, (Dodd's White); H. Hervey, Midnapore, 4th, (New Century); Johnstone Bros., Langdon, 5th.

Class 8.—Barley, six-rowed: J. E. Blore, Lillieo, 1st; T. Brandley,

Stirling, 2nd; John Loree, Innisfree, 3rd.

Class 9.—Barley, two-rowed: A. Woolley, Norton, 1st, (Standwell); F. II. Herbert, Strathcona, 2nd, (Standwell); J. B. Ririe, Magrath, 3rd, (Garton's).

Class 10.—Field peas: A. Woolley, Norton, 1st, (Canadian

Beauty); A. Brewster, 2nd, (Goldenvine).

Class 11.—Flax seed: John Enger, Morrin, 1st; Ed. Whipple,

Maeleod, 2nd, (Premost); John I. Chipman, Magrath, 3rd.

Class 12.—Timothy seed: W. Teedle, Fishburn, 1st; J. L. Storey, Laeombe, 2nd; A. Lougheed, Bowden, 3rd.

Class 13.—Brome grass seed: D. Patton, Midnapore, 1st; H. Hanson, Taber, 2nd; A. Perry, Cardston, 3rd.

Class 17.—Alfalfa: John I. Chipman, Magrath, 1st, (Turkestan).

SPECIAL PRIZES.

Class 21.—Farm Crops trophy: Best 5 bushels of spring wheat, won by F. A. Adams, Macleod.

Class 22.—Alberta Pacific Elevator Co. trophy, best 5 bushels of Alberta Red winter wheat: Won by W. J. Glass, Macleod.

Class 23.—Brackman-Ker Milling Co. trophy, best 5 bushels of milling oats: Won by Malmberg & Sons, High River.

Class 24.—Calgary Brewing & Malting Co. trophy, best 5 bushels of 6-rowed barley: Won by H. G. Long, Maeleod.

Class 25.—Canadian Paeific Railway Company's trophy, best 2

bushels of two-rowed barley: Won by F. H. Herbert, Strathcona. Class 26.—Garton's Pedigree Seed Co. trophy, best 5 bushels of

Regenerated Abundance oats: Won by E. Swift, Magin.
Class 27.—Best bushel of winter wheat: Won by A. Woolley,

Class 28.—Best bushel of spring wheat: Won by F. A. Adams, Maeleod.

Class 29.—Best bushel of oats: Won by John Loree, Innisfree. Class 30.—Best 100 pounds of hard wheat: Won by F. A. Adams, Macleod.

The judges who placed the awards were:

Wheat classes.—C. E. Lewis, Edmonton, and W. H. Fairfield, Lethbridge.

Oats, barley, peas, grass and clover seed.—G. H. Hutton, Lacombe, and H. B. Smith, Calgary.

JUDGING COMPETITIONS.

These competitions were held on the last day of the fair and were open to all farmers and farmers' sons in the province. The competitors were expected to judge several varieties of wheat and oats and to identify several samples of weed seeds. There were ten young men entered in this contest:

Class 18.—Judging wheat: 1st, A. R. McFayden, Macleod; 2nd, F. C. Hanes, Macleod; 3rd, J. B. Ririe, Magrath; 4th, J. Boag, Pincher Creek.

Class 19.—Judging oats: 1st, A. R. Bennett, Magrath; 2nd, J. Boag, Pincher Creek; 3rd, E. F. Tovell, Claresholm; 4th, J. B. Ririe.

Class 20.—1st, J. Boag, Pincher Creek; 2nd, F. A. Adams, Macleod; 3rd, F. C. Hanes, Macleod.

PUBLIC MEETINGS.

The meetings held during the fair were well attended and great interest was taken in the addresses and discussions which followed. The following is a list of the speakers:

Hon. Duncan Marshall, Minister of Agriculture; George Harcourt, Deputy Minister of Agriculture; James Murray, Suffield; W. H. Fairfield, Supt. of Experimental Farm, Lethbridge; G. H. Hutton, Supt. of Experimental Farm, Lacombe; Guy W. Johnston, Provost; F. S. Jacobs, editor, Farm and Ranch Review, Calgary; C. E. Lewis, Supt. of Fairs and Institutes, Edmonton.

Respectfully submitted,

A. McKenney, Superintendent of Seed and Weed Branch.

4.—REPORT OF CHIEF GAME AND FIRE GUARDIAN.

SIR,—I have the honour to submit herewith my seventh annual report in connection with the enforcement of The Game Act and Prairie Fires Ordinance for the year 1912.

1.—Protection of Game.

I am pleased to report a very noticeable increase in all kinds of game, wild ducks excepted, for the year 1912. The amendment to The Game Act, providing that no female deer, moose or mountain sheep may be killed will undoubtedly result in a further increase in the numbers of these animals.

I regret, however, to report that owing to the settlement of the districts frequented by antelope (thereby reducing their range) the extinction of these beautiful animals will eventually result unless a section of country suitable for them is reserved from settlement. Unsuccessful attempts have been made to rear them in the Dominion parks. I understand, however, that the parks department have secured a section of land in the vicinity of the Red Deer River, north and east of Brooks, for the purpose of establishing an antelope park or game preserve. If this is fenced and one side left open until a suitable season, a drive can undoubtedly be made which, if handled properly, should result in placing a number of these animals in the enclosure. It is believed that no trouble will be found in rearing them in an enclosure situated in the district which they are in the habit of frequenting

GAME BIRDS.

I regret that with the increase in the numbers of prairie chicken and partridge, illegal shooting increases. In some districts farmers are complaining of the damage caused to grain by chicken. I am of the opinion, however, that the damage is not as great as represented, in fact, in many cases it is hardly noticeable. For at least ten months of the year this bird lives on rose buds, berries, weed seeds, grubs and insects, thereby destroying many of the destructive species of insects and grubs, which would undoubtedly reduce the yield of grain. The partridge is known to feed on insects which are destructive to vegetation, especially trees and shrubs. It would appear to me, therefore, that if no prairie chicken or partridge were killed their services in destroying injurious grubs and insects would more than pay for any damage they may do to the farmer's crop.

FUR BEARING ANIMALS.

Beaver.—As reported in 1911 these animals are still on the increase, considerable damage being reported in the southern portion of the province where small groves or patches of timber exist. In other sections their dams are causing hay meadows to be covered with water. It would appear therefore that at no distant date it will be necessary to declare an open season under very stringent regulations.

Mink, fisher, marten and other fur bearing animals are still reasonably plentiful.

BIG GAME.

The hunting season of 1912 was not as favourable for the big game hunter as that of 1911. There was not sufficient snow until late in the season in many districts to enable the hunter to track the animal which he was hunting.

Returns received from license holders showing the number of animals shot, shows the following result for the years 1907 to 1912 inclusive:

	1907	1908	1909	1910	1911	1912
Antelope	49	45	89	126	101	105
Moose	14	37	86	184	305	425
Caribou			5	8	3.0	40
Mountain Sheep			40	54	49	90
Mountain Goat			38	46	56	58
Elk				7		
Deer	59	125	299	540	619	768

This of course does not show the total game killed, as very few of the residents in the unorganized districts purchased licenses. The records, however, for game killed south of the 55th parallel are reasonably correct.

BRANDING GAME HEADS.

Section 11. of the Act which requires the branding of game heads before buying or selling, shows the following results:

	1907	1908	1909	1910	1911	1912
Mountain Sheep	216	2	9	11	2	6
Mountain Goat	62		1	1	1	2
Elk	41	3	4	2	2	1
Moose	39	29	33	32	40	27
Caribou	16	6	6	2	3	6
Deer	142	15	26	26	40	16
Antelope	95	5		3	3	4

LICENSES AND PERMITS.

An increased number of licenses and permits were issued in 1912 as against former years. The amendment to the Aet requiring the residents of cities, towns and villages to obtain licenses before hunting or shooting game birds, resulted in the sale of 9,519 of these licenses.

The following table shows licenses and permits sold each year:

	1907	1908	1909	1910	1911	1912
General Game Licenses	4	7	17	24	24	28
Bird Game Licenses			3	3	67	67
Trappers' Licenses	6	4	1	10	14	26
Resident's Big Game	446	529	1,162	1,997	813	1,043
Resident Farmers Big Game					2,118	2,917
Resident Bird Game					7,452	9,519
Guides' Licenses	6	3	7	8	13	21
Camp Helpers' Licenses	1	1	1	4	5	5
Game Dealer's Licenses	12	23	39	30	16	26
Market Hunter's Licenses					60	75
Permits to export	15	17	19	35	24	27
Permits to collect	6	6	1 6	23	7	7

CONVICTIONS AND FINES.

	1908	1909	1910	1911	1912
For hunting on Sunday	12	4	4	9	
For hunting in close season	11	36	29	23	6
Buying and selling unbranded heads	8	6	3	1	
Hunting without a license	7	6	14	17	1
Selling without a license	7	7		1	· 2
Miscellaneous offences	4	2	9	7	71
Taking females				4	

REVENUE FROM GAME.

The accompanying table brings out some interesting facts about the revenue received in connection with game. By referring to the table it will be found that the revenue exceeded the expenditure for the year 1912 to the extent of \$6,692.33, and by comparing the revenue for the years 1906 to 1912 inclusive, with the expenditure for the same years, it will be seen that the revenue from the sale of licenses and permits exceeds the expenditure by \$14,792.57. It is therefore demonstrated that a license system which requires hunters and sportsmen to purchase a license before hunting or shooting game, places the protection of game on a self-supporting basis, and should result in an increased revenue each year, with the result that more game guardians can be engaged to better protect the game. It is possible that the revenue from this source will become sufficiently large to warrant the payment of a bounty on animals and birds destructive to game. Of these the covote and crow are the worst offenders.

REVENUE FROM GAME --- MONEYS COLLECTED.

	1906	1907	1908	1909	1910	1911	1912
General Game Bird Game Trappers Resident's Big Game Kesident Farmer's Big Game Resident Bird Game Gandes' Camp Helper's Game Dealer's Market Hunter's		\$93.00 40.00 115.00 30.00 2.00 120.00	\$175.00 40.00 1,322.50 15.00 230.00	\$425.00 45.00 10.00 2,905.00 35.00 35.00 390.00	\$600.00 45.00 100.00 4,992.50 40.00 10.00 300.00	\$600.00 335.00 335.00 2,034.00 2,118.00 9,315.00 65.00 26.00 160.00	\$700.00 325.00 260.00 2,607.50 2,917.00 11,898.00 105.00 265.00 375.00
Permits to export Permits to collect Branding Conflicated Game		$\begin{array}{c} 171.00 \\ 65.00 \\ 2,158.00 \\ 154.00 \end{array}$	92.00 50.00 240.00 337.50	50.00 55.00 314.00 104.50 447.50	76.00 45.00 295.00 108.75	41.00 35.00 30.00 700.00	65.00 35.00 246.00 45.00 861.00
Total Expenditure	\$ 145.00 \$1,929.69	\$3,948.50 \$2,216.62	\$2,504.50 \$4,323.60	\$4,793.50	\$6,940.25 \$4,766.20	\$16,219.50 \$8,935.00	\$20,734.50
Surplus Deficit	\$1,784.69	\$1,731.88	\$1,819.10	\$786.40	\$2,174.05	\$7,284.50	\$6,692.33

TABLE I.—A RETURN SHOWING THE NUMBER AND VALUE OF THE FUR CATCH.

!	Fron	n Small I	Dealers		olesale Deal Exporters
1	No. of Skins	Average Value	Total Value	No. of Skins	Total Value
Badger	46	\$1.00	\$46.00	363	\$606.75
Bear (Black)	36	12.50	450.00	7 7 6	6,720.81
Bear (Brown)	3	8.00	24.00	124	991.20
Bear (Grizzly)	2	10.00	20.00	17	136.00
Bear (Cub)	1	.50	.50	99	535.50
Beaver				566	3,030.40
Coyote	582	3.80	2,211.60	5,204	24,983.61
Fisher				85	1,805.20
Fox (Cross)	10	8.90	89.00	493	5,585.90
Fox (Red)	41	7.00	287.00	966	6,536.25
Fox (Silver)				62	12,927.00
Lynx	n0	19.47	1.168.20	2,532	45,814.95
Marten	10	12.40	124.00	2,974	25,168.07
Mink	96	4 90	470.40	3,651	16,413.50
Otter	2	17.50	35.00	296	2,523.00
Muskrat	59,362	37	21,963.94	302,290	117,423.47
Skunk	64	1 27	87.68	599	866.12
Weasel	4,496	. 53	2,382.88	20,463	12,222.17
Wolverine	100	6.00	600.00	102	691.80
Wolf	6	15.00	90.00	66	376.30
	-		330,050.20	TOTAL THE	\$285,358.00

TABLE II.—Showing Annual Fur Catch for the Years 1907 to 1912 Inclusive.

-		From	om Small	Dealers		:	From	m Wholesale	sale Dealers	and	Export ers	
	1907	1908	1909	1910	1911	1912	1907	1908	1909	1910	1911	1912
Badger	595	360	329	142	163	46	310	252	182	360	150	363
Bear (Black)	285	117	103	89	209	36	1,660	2,173	5,671	1,671	1,160	922
Bear (Brown)	83	24	26	∞	34	ಣ	342	300	195	143	. 112	124
Bear (Grizzly)	28	10	2	000	15	63	127	40	28	15	:	17
Bear (Cub)	44	6	19	22	15	-	100	02	51	140	55	66
Beaver	750	:	85	:	580	:	2,542	1.514	8,495	5,607	3,032	266
Coyote	11,502	11,537	5,765	3,222	1,858	582	5,262	6,404	3.055	4,128	1,897	5,204
Fisher	44	34	16	10	15	:	351	242	155	194	65	82
For (Cross)	352	98	19	1.9	57	10	1.674	910	445	445	391	493
Fox (Red)	1,111	254	88	98	142	41	4,662	1,638	714	865	629	996
Thow (Silvor)	216	12	c1	63	∞	:	411	242	10	111	69	62
Lynx	12,511	1,834	307	222	159	09	42,669	7,778	1,176	803	950	2,532
Marten	11,273	377	157	135	460	10	12,234	9,397	7,378	5,836	6,329	2,974
Otter	472	12	L .√	:	185	21	423	520	539	200	251	296
Mink	8,053	637	398	412	905	96	7.912	2,685	2,562	3,024	4,591	3,651
Muskrat	159,661	104,811	142,334	234,337	106,708	59,362	119,832	157,493	288,654	671,986	355,512	302,290
Squirrel	П	390	51	:	:	:	:	:	:	:	:	:
Skunk	4,189	268	216	283	284	64	3,914	982	518	432	253	599
Weasel	3,256	4,984	5,889	8,350	9,919	4,496	5,491	7,523	14,643	20,838	17,319	20,463
Wolverine	451	t-	₹ŗ'	8	346	100	446	642	495	266	143	102
Wolf	65	23	34	38	30	છ	922	237	218	198	270	99
Deer	357	16	, -	63		:	30	:	:	:		:
Moose	17		-	್		:	:	24	∞			
Elik	4			•	•	:		17	:	:		
Caribou	:		:		:		:	:	125	11	:	
Muskox			:		:	:		-	127	32	74	
								!	-1			

DEPARTMENT OF AGRICULTURE

To those who are interested in the protection of game the close seasons adopted in other places will no doubt be of interest. The following tables give the desired information for the year 1912:

TABLE III.—OPEN SEASON FOR GAME BIRDS IN VARIOUS STATES AND PROVINCES.

	PROVINCES.	
	SHARP-TAILED GROUSE	
	(Prairie Chick∈n)	1
STATES	RUFFLED GROUSE	DUCK
	(Partridge)	
Maine	Sept. 15 to Dec. 1	Sept. 1 to Dec. 16.
	Oct. 1 to Dec. 1	
Vermont	Sept. 15 to Dec. 1	Sept. 1 to Dec. 16
Massachusetts	. Oct. 12 to Nov. 13	Sept. 15 to Jan. 1.
Rhode Island	. Nov. 1 to Jan. 1	Aug. 15 to Dec. 16.
Connecticut	. Oct. 8 to Nov. 24	Sept. 1 to Dec. 16.
New York	. Oct. 1 to Dec. 1	Sept. 16 to Dec. 16.
	. Oct. 15 to Dec. 1	Sept. 1 to Dec. 16.
Delaware	. Nov. 15 to Jan. 1	Nov. 1 to Feb. 1.
Maryland	Nov. 1 to Dec. 25	Oct 15 to Feb 1
West Virginia	Nov. 1 to Feb. 1	Sept. 1 to Jan. 16.
Kontucky	Oct. 15 to Dec. 1	Aug. 15 to Apr. 1.
Ohio	To Nov. 15, 1915	Sept. 1 to Dec. 2.
Ohio Michigan	Oct. 1 to Dec. 1	Sept. 1 to Dec. 16.
Indiana	. Nov. 10 to Dec. 21	Sept. 1 to Dec. 16.
Illinois	To July 2, 1920	Sept. 2 to Dec. 16.
Wisconsin.	Sept. 10 to Dec. 1	Sept. 1 to Dec. 16.
Minnesota	Oct. 1 to Dec. 1	Sept. 7 to Dec. 1.
Iowa	Nov. 1 to Dec. 15	Sept. 1 to Dec. 16.
Missouri		
Kansas	Oct. 1 to Nov. 2	Sept. 1 to Dec. 16.
Nebraska	Sept. 1 to Dec. 1	Sept. 1 to Dec. 16.
South Dakota	Sept. 10 to Oct. 10 Sept. 7 to Nov. 2	Sept. 10 to Dec. 16.
Montana	Oct. 1 to Nov. 1	Sept. 7 to Dec. 16.
	Sept. 15 to Dec. 16	
Colorado	Aug. 15 to Oct. 11	Sept. 1 to Dec. 16.
Florida		Oct. 1 to Jan. 16.
Alabama	Dec. 1 to Dec. 15	Sept. 1 to Jan. 16.
Mississippi	T	Sept. 1 to Jan. 16.
Tennessee	Nov. 1 to Mar. 1	Oct. 1 to Jan. 16.
Louisiana		Oct. 1 to Jan. 16,
Oklahoma		Aug. 15 to May 1.
		Sept. 1 to Dec. 16. Sept. 1 to Dec. 16.
Arizona		
Variationia		Oct. 1 to Jan. 16. Sept. 15 to Jan. 16.
IItoh	Oct. 1 to Dec. 16	Oct. 1 to Jan. 1.
Idaho		Sept. 1 to Dec. 16.
Washington	Oct. 1 to Dec. 1	Oct. 1 to Jan. 16.
Oregon	Oct. 1 to Nov. 1	Nov. 1 to Dec. 16.
Alaska		Sept. 1 to Mar. 2.
PROVINCES		-
British Columbia	Sept. 15 to Apr. 1	Sont 15 to Apr 1
Yukon		Aug. 10 to June 1.
		Aug. 23 to Jan. 1.
Saskatchewan	Sept. 16 to Nov. 16	Sept. 15 to Jan. 1.
Manitoba	Oct. 1 to Oct. 20	Sept. 1 to Dec. 1.
Ontario	Oct. 15 to Nov. 16	Sept. 1 to Dec. 16.
Quebec	Sept. 1 to Dec. 15 8	Sept. 1 to Mar. 1.
New Brunswick	Sept. 15 to Dec. 1	Sept. 1 to Dec. 2.
Nova Scotia	Oct. 1 to Nov. 1	Sept. 1 to Mar. 1.
Prince Edward		
Island	G	Aug. 20 to Jan. 1.
newloundland	Sept. 20 to Jan. 1	ept. 20 to Jan. 1.

TABLE IV.-OPEN SEASON FOR BIG GAME IN VARIOUS STATES AND PROVINCES.

	MANAGE STATE	A FOR OLD CAME IN	IN TAMIOUS MINITES AND	AND I MOVINCES.	
STATES	DEER	ELK	MOOSE	ANTELOPE	SHEEP AND GOAT
Maine New Hampshire	Oct. 1 to Dec. 16		Nov. 1 to Dec. 1		
Vermont	ند و ا ب				
Massachusetts	Nov. 17, 1923				
New York					
New Jersey	Nov. 1 to Nov. 6				
Virginia	Sept. 1 to Dec. 1.				
West Virginia	15 to				
Kentucky	Sept. 1 to Mar. 1.				
Illinois	אַלוּ				
Wisconsin	₹ ;				
Minnesota	10		Nov. 10 to Nov. 30.		
Iowa	-				
Missouri	2 ;				
North Dakota	Nov. 1 to Dec. 1				
Montana	1 to Dec. 1	ct. 1 to Dec. 1			Oct. 1 to Dec. 1.
Wyoming	1 to Nov. 1	Sept. 1 to Nov. 16	to Nov. 16 To Sept. 1, 1918		
South Carolina	Oct. 1, 1918				
Georgia	٠ <u>ټ</u>				
Florida	П				
Alabama	1 to				
Mississippi	و				
Tennessee	ot. 1,				
Total	٦,		•		
Objections	Nov. 1 to Jam. 1				
New Mexico	3 —				
Arizons	1 2				
			•		

California	July 1 to Sept. 1	:			
:	Oct. 15 to Nov. 16				
:	Oct. 1 to Oct. 16				
:	Sept. 1 to Dec. 1	Sept. 1 to Dec. 1			Sept. 1 to Dec. 1.
Washington	Oct. 1 to Dec. 1		Oct. 1, 1925	Sept. 15 to Nov. 1	Oct. 1 to Dec. 1.
:	Aug. 1 to Nov. 1				
Alaska	lug. 15 to Nov. 2.		Aug. 20 to Jan. 1		Aug. 20 to Jan. 1.
PROVINCES	1)		
•	Sept. 1 to Dec. 16		Sept. 1 to Jan. 1		Sept. 1 to Nov. 15.
:	Sept. 1 to Mar. 1	Sept. 1 to Mar. 1	Sept. 1 to Mar. 1.		Sept. 1 to Mar. 1.
:	Nov. 1 to Dec. 15		Nov. 1 to Dec. 15	_:	Sept. 1 to Oct. 15.
:	Nov. 15 to Dec. 1	Nov. 15 to Dec. 1	Nov. 15 to Dec. 1	:	
:	. Dec. 1 to Dec. 15		Dec. 1 to Dec. 15.	Dec. 1 to Dec. 15.	
:	Nov. 1 to Nov. 16		Oct. 16 to Nov. 16.		
:	Sept. 1 to Jan. 1		Sept. 1 to Jan. 1.	•	
:	Rept. 15 to Dec. 1		Sept. 15 to Dec. 1.		
Nova Scotia	To Oct. 1, 1915		Sept. 16 to Nov. 16.		
Newfoundland					

GAME GUARDIANS BY CONSTITUENCIES.

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GAME GUARDIANS	ADDRESS .
Moore, D. H. Carter, J. R. Pound, L. L. Avery, Walter Shanks, W. K. Campbell, Stuart F. Lamont, Robert Henry Maddex, J.P., Wm.	Beaver Lodge Ribstone Vermilion Bashaw Kitscoty Greenglade.
Athabasca.	
Biggs, Wm	
Camrose.	
Dempsey, J. G. Fleming, A. W. Mohler, Wm. Mickleburgh, A. Pithouse, H. G. Spilstead, Jas. Wilson, O. T. Kezar, C. F. Battram, Thos. Kunke, F. Welles, W. D. Griffis, H. H. Bailey, C. Stanley Neveu, Jas. Neveu, Joseph Yates, Wm. Wendt, W. F. Brooks, M. W.	Ohaton. Round Hill. Spilstead. New Sarepta. Spilstead. Camrose. Ferintosh. New Serepta. Ferintosh. Daysland. Daysland. Camrose. New Norway. New Norway. Duhamel.
Calgary.	
Beveridge, S. E. Campbell, D. W. Grahame, G. M. Wbeeler, A. D. Oswald, J. C. Dippie, G. F. MacKay, W. G. Martin, Fred R. Martin, Alex Kennerly, L. H. Revine, A. Saunders, Wm. S. McLaren, Ben	Calgary. Calgary. Calgary. 334 11th St., Calgary. 218 8th Ave. W., Calgary. 231 8th Ave. E., Calgary. 231 8th Ave. E., Calgary. 231 8th Ave. E., Calgary. Box 1234, Calgary. care F. Martin, 231 8th Ave. E., Calgary. Box 207. Calgary.
Cardston.	
Brown, John Geo. Sloan, Jno. Tolley, Wm. F. Cooper, Moses R. O'Brien, F. J. Turner, Fred H. Heathershaw, Geo. Danielson, Carl	Kimball. Mountain View. Waterton Lakes. Raymond. Magrath. Magrath.

Claresholm.

Lyndon,	Wm.				 		 						. Lyndon.
Ross, D.	Μ								 				. Monarch.
Miller, J.	W.				 		 						. Carmangay.
Smith, Pe	erev	Α.					 						. Granum.

Cochrane.

Abell, F. H.	. Cochrane.
B€11, E. L	
Fraser, J. A. W	
Graham, Wm	
Grayson, Chas	
Johnston, Geo. W	
Meiklejon, R. W	
McLeod, Geo	Dog Pond.
Robinson, R. G.	Calgary.
Skinner, D. W	Sampsonton.
Thompson, E. V	
Edwards, Cecil	Glenbow.
Butler, Robt.	Box 154, Cochrane.
Farr, Leslie	Airdrie.
Spooner, J. A	Kew.
Baptie, Adam M	Exshaw.
Davey, Wm. C.	Airdrie.
McDougall, Jno. B	Morley.
Reid, Geo. A	
James, Thos	Box 268, Cochrane.
Willis, Jos	Box 296, Cochrane.
Hultgren, Chas	Crossfield.
Forbes, H. D	Simons Valley.
Alfrey, J. E	

Didsbury.

McLeod, John Sunny Slope.
McIntyre, Wm Didsbury.
Godden, Edwin Tapscot.
Shantz, David S Didsbury.
Shantz, L. N. R
James, C. S Acme.
White, Fred B Swalwell.
Walker, T. A
Hunter, M. E Swalwell.

Edmonton.

D1 11 D 7	0.40 1 4 04 1717
Blackburn, B. F	646 1st St., Edmonton.
Bulmer, Geo	724 Ottawa, Edmonton.
Cooper, W. H	
	monton.
Carpenter, J. V. E	131 Jasper W. Edmonton
Mercer, J. B	212 Jasper E. Edmonton.
Robertson, W. S	
	Blk., Edmonton.
Rudd, H. E	375 Kirkness, Edmonton,
Turnbull, Hugo	Edmonton.
McEchern, Donald	
Smith, Robert	
Morris, H. G	
Jellett, J. St. George	344 Jasper E. Edmonton.
McKenzie, K. B	care Ross Bros. Edmon-
	ton.
Thom, J. M	23 Jasper W., Edmonton.
Chambers, P. A.	
Blackwood, Chas	
	tings Sts., Edmonton.
Steckle, Norman	622 Isabella, Edmonton

McCallum, Donald	monton.
Umbach, John H	Box 291, Edmonton.
	Edmonton.
McFadyen, A. C	Box 1558, Edmonton.
Brown, G. L.	543 13th St., Edmonton.
Cox, R. H	141 McDougall, Edmon-
,	ton.
Peterson, Robt. A	704 1st St., Edmonton.
Riggs, W. A	care Sommerville Hrde
	Co., Edmonton.
Simpson, E. H	233 Jasper East, Edmon-
- ,	ton.
Bell, Sydney Wm.	care 24th St. Grocery, Edmonton.
Stanford, Chas. R	care Northern Club, Ed- monton.

Gleichen.

Bunny, B. H	Red Deer, Gleichen.
Brown, W. W	
Martin, Dan, Jr	Rosebud Creek.
Clark, John, Jr	Gleichen.
Bruce, Edward M	Cluny.
Service William	Gleichen.
Slude, David	Dorothy.
Robson, R. B	Strathmore.
Nathan, J. H	Beiseker.
Lincoln, Arthur G	Langdon.
Aylward, J. B	Hillhurst, Calgary P. O
Binns, J. H	Brooks.
Bond, Geo. B. R	Bassano.
Hames, W. A. W	Bassano.
Ross, R. C	

High River.

Dunlop, Wm. A
Estcourt, Wm. H Pekisko.
Gervais, Romain Loma.
Brown, S. J Aldersyde.
Riddle, D. M Baronet.
Kuck, Fred Pekisko.
Baker, E. R Pekisko.
Jones, Herbert

Innisfail.

	•	
Archer, F. W		Innisfail.
Faris, Jas., Jr		Trenville.
Milligan, R		Pine Lake.
Mustard, H. M		Markerville.
Robinson, Edmund		Little Red Deer, Innisfail
Robinson, J. K		
Scott, Wm. L		Markerville.
Thaw, Guy		Raven.
Major, Donald		Stauffer.
Muir, B. A		Prairie Grange.
Thompson, Frank		Innisfail.
Sanborn, J. E		Innisfail.
Tatham, Cyrii H		Stauffer.
Scott, N		. Stauffer.
Bower, Len D		Caroline.
Haron, R. B		
Stevenson, James		. Raven.

Lac Ste. Anne.

Musselman,	D	 	 	Onoway.
Maloney, J.	V	 	 	Roydale.
White, Hen	ry	 	 	Wabamun.
				Lac Ste. Anne.

Lacombe.

Brerton, T. A Clive.
Boyd, A. J Lacombe.
Capron, Jos Blackfalds.
Carritt, J. C Bentley.
McPh∈rson, W. B Bentley.
Pinnell, Chas Alix.
Smith, Wm Lockart.
Stephens, Fred Lacombe.
Triplett, J. E Forshee.
Waghorn, W Blackfalds.
Evans, H. J. Angell Lacombe.
Miller, Leroy Lacombe.
Kent, Jas. P Lacombe.
Parlby, Walter Alix.
Allison, Edwin Content.
Reid, Wm Lacombe.
De Groff, G. A Bentley.
Murdoch, J. D Lamerton.
Wheatley, Fred Tilly.

Leduc.

Blades, W. F Leduc
Brissard, Jos Box 152, Ledue.
Clifford, F Conjuring Creek
Erwin, Jonah Leduc.
Green, F. B Bonnie Glen,
O'Mara, E O'Mara
Sanders, Nels A Thorsby.
Ohrn, Carl Herbert Ohrnville,
Sahlstorm, Walter Thorsby.
Stromsen, S. M
Baker, R. C Leduc.
Piggett, Ben
Vanalstyne, J. H Telfordvllle.
Blades, Jas Millet
Postle, Leonard Calmar.
Allan, Harry Stone's Corners
Billsborrow, Wm Leduc.
Brown, Chas., Jr Telfordville
Sprivdlee, W Barrymoor.

Lethbridge.

Case, H. Lethbridge. Withers, H. E. Lethbridge. Agnew, F. R. Box 1375, Calgary. McDonald, Dougall Ewen Lethbridge. McAloney, Robert F. Bow Island. Layton, S. J. Taber. Wright, B. W. Taber. Ostlund, Gustav Stirling. Crabb, S. A. B. Barnwell. Lomas, George Bow Island. Olander, C. G.	
Olander, C. G 524 Westminster Ros Lethbridge.	∌đ,
Miller, Manley L Stirling.	
O'Brlen, T. J Raymond	

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M	2019.1	nne	н	7. t.

Bray, J. H. G	Box 417, Medicine Hat.
Murray, Geo	Seven Persons.
Rutherford, Wm	Elkwater.
Rutherford, R	Irvine.
Armstrong, Peter R	
Robinson, Jas	Josephsburg.
Boyd, Robt	
Murray, J. B	
Newby, Herbert Sutton	lrvine.
Clarke, Maurice T	Eagle Butte:
Bishop, Jesse	Medicine Hat.
Stevens, H. J	Carlstadt.
Whiffin, Hartley A	Suffield.
Caven, Henry	Dunmore.
Webster, E. C.	Medicine Hat.
Lamarsh, Peter	Winnifred.
England, Elmer	Carlstadt.

Macleod.

Cochlin, John	Macleod.
Pearson, G	Standoff.
Roberts, P. J	Macleod.
McNab, R. B	Macleod.
Stockton, Jas. H	
Grant, J. A	Macleod.
Kortright, P. F	Macleod.

Nanton.

Carmicheal,	W.	\mathbf{A} .	 	Champion.
Schuler, N.	B.		 	Schuler.

Okotoks.

Buckler, Eric W Black Diamond.
May, E. G Elbow River R. R., No. 2
Calgary.
Craig, F Midnapore.
Grant, John A Black Diamond.
Pomery, P. M Priddis.
Robinson, J Pirmez Creek.
Livingstone, G Bragg Creek.
Shaw, Hugh K Midnapore.
Hone, A Midnapore.
Thompson, Geo Okotoks.
Allen, L Okotoks.
Murray, P. H Okotoks.
Young, Edwin H De Winton.

Olds.

Byron, Thos Eagle Hill, Olds.
Distman, A. C Trochu Valley.
Starken, Swan Garrington.
Thompson, Colln Red Lodge.
Thompson, Evan Red Lodge.
Logan, N. W Olds.
Grant, J. E Olds.
McKim, H. H Bowden.
Barathy, Sidney de Trochu.
Shenfield, E. W Bowden.
Durant, Harry Trochu.
Brewster, J. I 1202 Broadview Boule-
vard, Calgary.
Heare, G. R Bowden.
Sackrider, S. F Bearberry.
Bird, Frederick Sundre.
Niddrie, Fred J Mound.

Peace River.

English, W. S. C.	 	 Spirit River.
Gaudet, Jno. P	 	 Peace River Crossing.
Monkman, Alex	 	 Grand Prairie.
McDonald, Duncan	 	 Dunvegan.

Pembina.

Clarke, T. A Pembina.
Cosens, F Sion.
Romeo, Jos. R Peavine.
Mennier, T Mosside.
Lucas, Arthur
Maier, Wm. G Sunniebend.
Barton, Robt Mosside.
Mathews, WmGlenister.
Stokes, S. D Fawn Lake.
Gregor, J. M Eastburg.
Bray, Wm. B Greencourt.
Edgson, Jno. A Edison.
Carr, Claude S Sunniebend.

Pakan.

Shortridge, G. W
Yealands, Geo Pakan.
Veillett, Geo. E Veillett.
Duquette, M. J St. Paul De Metis.
Vezeau, E. D Bonnyville.
Benerlin, Chas St. Paul De Metis.
Amsden, Roy C Elk Point.
Des Pius, Lewis Nap Brosseau.
Cordingly, R. C Flat Lake.
Limoges, J. H Cold Lake.
Oakes, Fred Veillette.
Widel, D. AFlat Lake.
Storach, Geo Abilene.
Ploof, Frank Elk Point.
Amsden, A. C. M Elk Point.

Pincher Creek.

Garrault, L Pincher Creek.
Porter, Geo. E Livingstone.
Willcock, D. E. W Pincher Creek.
Riviere, Henry Pincher Creek.
Dennis, Wilson
Willdigg, Thos. S Maycroft.
O'Molly, Harold

Ponoka.

Craig, B. F Bluff Centre.
Everts, Jas Wittenburg.
Fleming, Louis
Fraser, A. B Ponoka.
Schoonr, Jno Ponoka.
Stewart, P. R Earlville.
Davidson, A Buckhorn.
Beeley, J. H Rimbey.
Webster, O. L Ponoka.
Fagen, M. A Water Glen.
Craft, O. O Asker.
Allan, Rolla B
Aldridge, C. D Wittenburg.

Red Deer.

Bleay, Richard
Cottinghamn, W. H Red Deer.
Fisher, F. B Red Deer.
Kendall, J. S Red Deer.
Mellor, C. P Red Deer.
Wallace, Jos Red Deer.
Pearson, Wm. H
McDonall, G. H Pltcox.
Thorkman, Thos Eckville.
Towioanen, Peter Eckville.
Rutter, C. J Sylvan Lake.

Rocky Mountain.

McDougall, D		. : .	٠	Banff.
Robertson, Robert	٠.			Banff.
Sibbald, H. E				Banff.
Bevan, Jack		·		Banff

Strathcona.

Ellett, F. S
Inkster, Jas Strathcona.
Lackey, Hamilton East Clover Bar.
McLaggon, J. W Strathcona.
Tipton, J. W Strathcona.
Dunn, J. A Strathcona.
Murphy, C. H Strathcona.
Shields, W. K Strathcona.
Smith, J. E Strathcona.
Stephens, W. H Strathcona.
Wilkinson, W. F Clover Bar.
Cleland, J. G Ardrossan.
Bremner, J. C. C

Sedgewick.

De Bord, J. W Amisk.
Lyall, Chas. F Strome.
Matusch, A. B
McDonald, J. S Sedgewick.
De Pass, F
Reid, Elmer
Robson, T. S Killam.
*Ward, M. H Sedgewick.
Rae, J. D
Gillman, Thos. Herbert Vallejo.
Schnider, Felix Chas Rosenheim.
Purdy, Edwin Brewer Sounding Lake
Evans, Thos. Jas Provost.
Roderick, John Jas
Farquharson, Alexander Eye Hill.
Bogg, Andrew A Hughenden.
Gerrier, Wm Metiskow.
Wardner, Geo. J Provost.
Beesley, C. W Provost.
Collins, D. S Youngstown.
Brodie, Neil Clemens.
Jell, R. W Coronation.
Loades, G. A Viking.
Legate, Robert P
Maley, A. F Coronation.
Foss, M. F Stoppington
Desso, John Chas Fairacres.
Murphy, Henry A Consort.
Clysdale, T. E Tyrol.
Miller, E Strome.

St. Albert.

Kelly, Patrick	St. Albert.
Verstracte, Camille	Velleneu ve .
Gagnon, Sam	St. Albert.
Chave, Jules	St. Albert.
Jenkins, G. H	Seymour.

Stettler.

Barrett, E. W	Kanats.
Brace, Henry	Britain,
Critchley, H. D.	Red Willow.
Ducloy, Chas. E	Content.
Grose, J. C	Erskine.
Gray, W. B	Stettler.
Norton-Taylor, S	Hand Hills.
Ricketts, E. R	Castor.
Longson, H	Stettler.
Cope, G. R	Hanna.
Blades, R. H	Gadsby.
Berry, Edgar	
McKay, D. J	
Brown, G. L.	
Gibbons, Oliver	
Webb, Geo. S.	
Malott, L. A	
Moyer, John H	
Russell, Jas	
Wilson, J. A	
Wbiteoak, Jas. B	
Dorland, Sydney L	
Runn, J. B	
Matthias, E. H	

Stoney Plain.

Butchart, J. B Inga.
Bennett, Jno Keephills.
Currie, Chas Graminia.
Deans, S. J Brightbank,
Groat, E. A Spruce Grove Centre.
Kuhl, Henry Golden Splke.
MacGillycuddy, V. J Stoney Plain.
McDonald, Dan Mewassin.
Pinchbeck, E Winterburn.
Jenkins, F. J Tomahawk.
McKinley, Murd Stoney Plain.
Jasperson, Andrew Stoney Plain.
Sims, Elmer Inga.
Reid, Jas Manly.
Umbach, Israel Stoney Plain.
Estock, Jas Inga.
Mills, Fred S Onoway.
Porter, Geo. R Keephills.
Atkinson, B. W Spruce Grove Centre.
Bates, Arthur E Inga.

Sturgeon.

Bailey, R Namao.
Gibbons, W. R Battenburg.
June, Robt Namao.
Kennedy, Jno
Milligan, John
Mason, Wm Bon Accord.
Russell, John Athabasca Landing.
Trotter, J. R Lamoreux.
Whiteley, Wm. E Landlng Road Edmonton

Watt, W. W North	bank.
Florence, A. S Fedor	ah.
McLaughlin, C Cardin	ff.
Walker, C. A Atbab	asca Landing.
Saunders, Wm. S Stocks	8.
Henry, F. J Pine (Creek.

Vegreville.

Cockson, Geo., Jr	Tofield.
Gully, Lacy	Vegreville.
George, A. H	Lavoy.
Loades, G. A	
Lavoy, Jos	
Norn, Jos. A	
Roberge, C. C	
Shandro, A. S	Shandro.
Stewart, J. A	Mundare.
Trimble, John	Vegreville,
Watson, Andrew	Chipman,
Wynn-McKenzie, E. H	Warwick.
Gladens, Augustus	
Lynn, Percy E	Warwick.
Calvert, S. W	Chipman.
Moody, A. R	Beaver Lake.
Stewart, R	Whiteford.
McCallum, J. S	Mundare.
McVittie, G. E	
Stewart, Geo	Vegreville.
Nelson, C. E	Ryley.
Ewanchuk, Stifan	Whiteford
Morrison, J. C	Bathgate.
Whyte, George	

Vermilion.

Victoria.

Krebs, Johan Fort Saskatchewan.
Libbey, J. J Fort Saskatchewan
Simmons, E Fort Saskatchewan.
Coford, A. W Lamont.
Nemirsky, Theo Wostok.
Kittlitz, Ed Bruderheim.
Reid, J. H Lamont.
Minnie, Robt. H Andrew.

Wetaskiwin.

Barnard,	Α.	Η.	 Wetaskiwin.
Dickson,	Α.	\mathbf{R} .	 Wetaskiwin.

Cherrington, R. R	Wetaskiwin.
Swanson, C. H.	Wetaskiwin.
Wood, A. G	Wetaskiwin.
Wilcher, John G.	Lewisville.
Young, R. C.	Millet.
Stllfox, Henry	Morningside.
Larson, Ludvik C	

11.—Prevention of Prairie Fires.

I am pleased to report that in 1912 there were very few destructive fires. Owing to the wet season extending well into the fall no fires of any consequence were reported. Although there was an increase in the number of convictions as against 1911 this can be accounted for by the more active enforcement of the provisions of The Prairie Fires Ordinance. The number of convictions secured and the penalties imposed for the years 1907 to 1912 inclusive, are as follows:

	No.	of convictions	Total	Average
Year.		reported.	fines.	fine.
1907		33	\$ 741.00	\$22.45
1908		105	1,570.00	14.95
		94	1,796.00	19.10
1910		247	4,247.38	17.20
1911		33	565.00	18.25
1912		56	1,008.00	18.00

The following is a list of the voluntary fire guardians in the province arranged by constituencies:

FIRE GUARDIANS

ADDRESS

A l exandra.

Roberts, Ben	Kitscoty.
Sheridan, T. F	Walnwright.
Tonkin, E. A	Dewberry.
Wilson, R. A	Dewberry.
Skinner, F	Dewberry.
Websdale, C	Dewberry.
East, C	Greenlawn.
Babcock, Edward S	Lea Park.

Calgary.

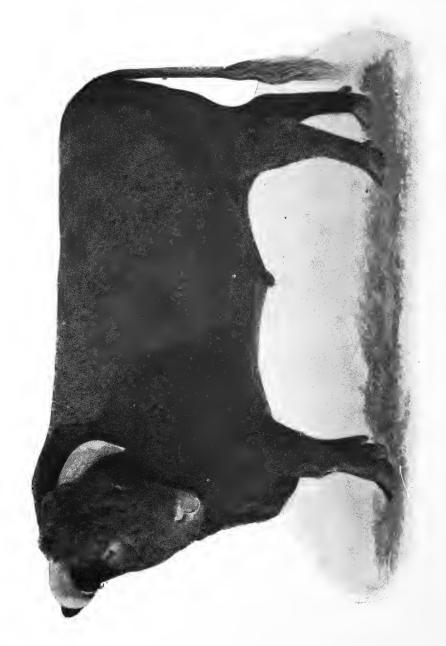
Carter, D	Calgary.
Campbell, Dan W	Calgary.
Grahame, G. M	
Johnston, Geo	Calgary.
Moss, Sidney H	Calgary.
Moss, Walter	Calgary.
McIntosh, J	Calgary.
McIntyre, R. W	
Thompson, W. A	Calgary.
Wheeler, A. O	Calgary.
Woolliams, W. D	Calgary.

Camrose.

Barber, Jno I	ron Creek, Spring Lake.
Bowie, Geo I	Ferry Polnt.
Hodgson, Francis J	New Serepta.
Johnston, Chas	
Roper, Ernest	Bittern Lake.

Cochrane.

Cochrane.	
Bell, E. Bradbourne Croxford, W. H. Airdrle. Elliott, Walter B. Cochrane. Fry, Herbert Cochrane. Goddard, Gilbert E. Mitford. Grahame, Wm. Bradbourne McPhee, M. Beaver Dam, Cochrane. Dixon, R. I. Crossfield. Reid, Geo. A. Cochrane. Stevenson, Johnston Airdrie. Sutherland, Jas. A. Crossfield. Urquhart, Wm. Crossfield. McLeod, Geo. Crossfield. Crowe, Walter Horse Creek. McDougall, J. B. Morley. Claresholm.	
Lyndon, W. ALyndon.	
\cdot Cardston.	
Ashe, Percy G	
Didsbury.	
Evans, Arthur Three Hill. McLeod, Jno. Sunnyslope. Shantz, J. D. Didsbury. White, Fred B. Swalwell.	
Edmonton.	
Hayes, J. O'NeillEdmonton.Mitchell, Arch.Edmonton.Tough, Jas.Edmonton.Turnbull, HugoEdmonton.McEchern, DonaldEdmonton.	
Gleichen.	
Brown, W. W. Strathmore. Clark, John, Jr. Gleichen. Colquhon, O. G. Gleichen. Code, John B. Dorothy. Hicks, Thos. Lathom. Hardwick, Douglas Snake Valley, Gleichen. Lawson, Jas. Dorothy. Maloney, A. S. Dunbow. Martin, Dan, Sr. Gleichen. McKinnon, L. Langdon. Strange, Alex. Gleichen. Scott, Harry Gleichen. McDuffee, E. N. Dorothy. Bunny, Brice H. Bassano.	
High River.	
Gervais, Romain Loma, Holmes, W. E. High River, Thorne, Wilfred B. Aldersyde. Carle, Richard P. Pekisko.	
Innisfail.	
Alford, R. P Pine Lake. Bitton, Wm. Shirley	



No. 5.—Butterfly King (IMP.) Dairy Shorthorn Bull at the head of the Shorthorn Herd, Demonstration Farm, Claresholm.



Collins, Harry F Pine Lake.	
Duncan, Geo Innisfail.	
Ellis, Geo. W Innisfail.	
Fleming, Geo Penhold.	
Gaetz, Fred W	
Morton-Bell, R Trenville.	
Mustard, H. M Markerville	٩.
Wynn, Robt Knee Hill.	

Lethbridge (City.)

Duff, Duncan	Lethbridge.
Fuller, Jas. Dixon	Lethbridge.
Kennedy, Edward	Lethbridge.
Link, Adam	Lethbridge.
Nash. A. C	

Lethbridge (District.)

Cox, E
Depew, Warren Raymond.
Furman, Jno
Kenny, E Pothole, Lethbridge.
McCarty, C
Otatt, O. H Optic,
Slawson, D. K
Steed, Frank O Stirling.
Scott, O. J Sweet Valley.
Jones, Elmer Sundial.
Connor, W. F Sundial.
Thwaites, Robt Sundial.
Doan, R Barney.
, :

Leduc.

Blocker, Wm	. Leduc.
Bradner, Henry	. Leduc.
Clifford, Frank	. Conjurlng Creek.
Fetherston, S. W	Leduc.
Johnston, S. H	. Beaumont,
Mortimer, Chas	. Leduc.
McEwan, J	. Conjuring Creek.
Ohrn, C. H	. Ohrnville.
Sanders, Nels A	. Ohrnville.

Lacombe.

Medicine Hat.

Borthwick, Wm Medicine	Hat.
Hargrave, W. H	
Markwick, Geo Medicine	Hat.
McLaughlin, J. D Medicine	Hat.

Boyd, Robt. Little, Wm. J. Hargrave, J. G. Hooper, Sidney McClain, Fred	. Medicine Hat. . Walsh. . Manny Berrles.				
Macleod.					
Cochrane, Wm. F. Gardner, C. W. E. Maryfield, Fred T.	. Macleod.				
Nanton.					
Narrish, J. D	. Nanton,				
Olds.	•				
Distman, C. Kembry, Raymond A. Moore, C. Wm. Wood, Chas. T. Wyndham, W. T. Brewster, J. I. Sackrider, S. F.	Olds, Tolman. Red Lodge. Huxley. Bowden.				
Okotoks.					
Bannlster, A. E. Fraser, J. A. W. Mickle, Chas. W. Woolley-Dodd, A. G.	. Jumping Pond. . Spring Bank.				
Ponoka.					
Ravensburg, O. C	. Asker. . Fei r ybank, Po no ka.				
Pincher Creek.					
Connolly, Alf. T. Eddy, W. T. Godsal, F. W. Porter, Geo. Smith, Harold J. Pakan.	. Cowley.				
Thompson, Lewis	Pakan				
Flaueand, F. Dubord, E. Amsden, Roy C. Vezeau, E. Jesson, E.	. Brazeau Durkingville Elk Polnt.				
Red Deer.					
Fiske, Robt. E. Fisher, F. B. Gaetz, Fred Martin, Angus McKuchney Reinholdt, J. F. Wilson, Jno Fred, A. J. Hollender, T. Gerber, W. Kneeshaw, Percy	Red Deer. Red Deer. Red Deer. Red Deer. Red Deer. Red Deer. Levarts. Pitcox. Evergreen.				

St. Albert.

Hughson, W. S.	. Manawan.
Hall, Thos	. Manawan.
Verstracte Camille	Villenenve

Stony Plain.

Knapp, H. H	Wlnterburn.
Mills, Chas	Inga.
McDonald, J. L	Edmonton.
Steffler, Ed	Spruce Grove Centre.

Stettler.

Dubois, J. F Hand Hills, via Stettler.
Ellwood, Jas Gopher Head.
Lensman, Gus Mayvrllle.
Lockwood, B Hand Hllis, via Stettler.
Lund, N. A Hand Hills, via Stettler.
Peters, Wm. W
Patterson, Geo. W
Savage, J. G
Brace, Henry Britain.
Flett, Lester Hand Hills.
Miller, W Lawsonburg.
Gardner, E. M
Daly, W. H Munson.
Usher, Chas Scollard.
Runn, J. B

Sedgewick.

Brightland, E. W	 Talbot.
Eastmead, W	 Caseleyville.
Reed, W. E	 Caseleyville.
Seeman, L. H	 Vallejo.
Weffer, N. B	 Caseleyvllle.
Jones, H. M	 Ethelwyn.
Grant, John	 Ethelwyn.
Beesley, Chas. W	 Proose.
Foss, M. F	 Stopplngton.

Sturgeon.

Gibbons,	W.	R.		. New	Lunnon
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Strathcona.

Ellet, Chas	s. C	. Strathcona.
McAllister.	Geo	. Strathcona.
Townsend,	Ed	. Strathcona.

Vegreville.

Borwick, John	 Whltford.
Richardson, Silas	 Whitford.
Brunton, C. H	 Ryley.

Vermilion.

Talbot, W. CIrt	na.
Weir, A. M	nnville.
Campbell, A Int	nl sfree.
Good Wm	rmilion.
Bergey, L. D	ughton Glen.
Silverlock, A. F Pe	guls.

Victoria.

Bevington, Chas. E. Fort Saskatchewan. Belcher, Henry Wostok. Dzibenka, Jos. Wostok. Halkew, John Wostok. McGall, David Star. Simmons, W. L. Fort Saskatchewan. Nemirsky, Theo. Wostok. Simmons, Elsworth Fort Saskatchewan.
$Wetaskiwin. \ \ $
Newton, Haydon Wetaskiwin.
Lac Ste. Anne.
Musselman, D.Onoway.White, H.Wabamun.Bennett, ThomasPadstow.
Rocky Mountains.
Bruneau, Jas. B Blairmore. Brewster, Wm. H Banff.

Respectfully submitted,

BENJ. LAWTON, Chief Game and Fire Guardian.

5.—REPORT OF THE POULTRY SUPERINTENDENT.

SIR,—I beg to submit herewith the annual report of the Poultry Branch of the department for the year 1912.

GENERAL.

During the year there has been an increased interest in poultry raising in general throughout the province. Through correspondence received and from observation I note that a great deal more attention is being given to poultry by many who formerly kept poultry without any particular object other than that the farm would not be complete without a few hens. Others again who have not felt inclined to be bothered with poultry around the place have secured stock or eggs and the general result is that poultry keeping is becoming more recognized each year as an adjunct necessary to the farm, not only for supplying the home, but from the financial returns secured from the ready sales of poultry products in the market.

That greater interest is being taken is also noted in the increased number of enquiries in the matter of housing and feeding, which indicates that more attention is being given to matters essential in

poultry raising.

Aside from the general interest taken in smaller flocks a large number of persons have established larger plants on commercial lines

making a specialty of poultry farming.

While there are still large numbers of scrub poultry kept on the farms there is a greater demand than in previous years for pure bred stock as evidenced by the reports of poultry breeders generally.

MARKETS.

The markets of 1912 have been equally as good as in former years with a much greater demand. There has been a marked increase in supply, but at the same time the demand has increased in a much greater ratio. While the province has always imported large quantities of poultry products the importation appears to be on the increase as well. Usually very few eggs are imported during the summer months until this year when several car loads were imported during the month of July, these importations coming largely from the United States.

The egg market during the year was more firm than in the previous year, no doubt due to the demand being much in excess of the supply. During the winter months fresh eggs sold readily at from 50 to 60c per dozen. While the supply was somewhat limited it was much greater

than in any former year.

Summer eggs remained firm throughout the season, being quoted at from 20c to 22c per dozen, during the months of April, May and part of June. From the middle of June to September case eggs were quoted somewhat lower and graded No. 1 and No. 2. No. 1 being quoted at from 18 to 19c, while at the same time strictly fresh eggs in the local market were selling freely at 30c per dozen.

In order to ascertain the difference in price between case and fresh eggs I made it a point to visit the eandling room of a local produce firm, and found the eggs arriving in a much inferior condition than earlier in the season. At the time of my visit I found that it required three cases of receipts to make one case of No. 1 eggs. The No. 1 grade thus made I found to be much inferior to the recognized No. 1 grade of eastern Canada. I noticed a large number of stale eggs and many in the first stages of incubation due to the warmer weather.

Had the producers followed the instructions recommended at all times by the poultry branch and produced only infertile eggs for market practically all the summer loss would be eliminated. By so doing not only would better prices be realized, but the dealers would have a much superior egg to offer to customers and consumers.

A marked improvement is also noted in the dressed poultry being offered. Many producers are paying more attention to fleshing their poultry, killing and plucking in a manner recommended to secure the better prices. There are still large quantities of poultry being offered that have been scalded and killed with a full crop, that not only reduces the market value, but in many cases makes the meat unfit for consumption. In a number of cases the local boards of health have confiscated and destroyed such being offered for sale. The attention that of late has been given to the pure food laws by our local health departments throughout the province is making conditions such that soon there will be no sale for poultry of this character.

There is still, however, an unlimited demand at good prices for all

the market poultry of good quality that can be produced.

In their desire to get a greater quantity of the better quality of dressed poultry a number of the dealers have established fattening houses and crate feed much of the live poultry received.

While there is a much better quality and a much larger quantity offered the demand has been even greater, especially for the better class. The importation of dressed poultry continues, and will likely do so for many years to come from the fact that the consuming population is increasing more rapidly than the poultry and eggs are being produced.

The importation of poultry and eggs still continues from the eastern provinces, and during the past summer many carloads of eggs have been imported from the United States. With the larger portion of the emigration that is coming to the Dominion settling within the province the demand is increasing more quickly than the supply.

It will thus be seen that the market conditions in the province arc such that even a much greater interest should be taken in poultry raising.

EDUCATIONAL WORK.

The educational work of the poultry branch for 1912 has been much greater and more extensive than in any former year. A large number of poultry institute meetings were held during the winter months throughout the province. Over 90 meetings in all being held. In this work the department was ably assisted by Miss Nora Treneh, Alix; Mr. E. J. Cook, Lethbridge, and Mr. J. T. Worthington, Strathmore. At these meetings general information and instruction was given in poultry raising.

Short course schools were held at Claresholm, Gleichen, Stony Plain, and Olds. At each of these schools the following subjects were dealt with: Poultry house construction, ventilation and sanitary require-

ments in housing, winter egg production, feeding and caring for poultry generally, incubation and rearing, fattening and marketing. At each of the schools there appeared a marked interest in the class-work.

A new feature in educational work was undertaken during the month of November in connection with the tour of the province with the Mixed Farming Special. A baggage car on this train was fitted up and devoted to poultry exhibits. Included in these exhibits were live birds illustrating the crate system of feeding. Representative utility pens of Barred and White Rocks, Buff Orpingtons, White Wyandottes and Rhode Island Reds. An exhibit of a killing device, shaping frame, with dressed birds in shaping, two cases of dressed poultry, one case illustrating properly killed and packed. The other illustrated poorly fleshed and poorly packed. Different styles of trap nests were exhibited with trap nest records and results of trap nest work.

There were also models of different styles of poultry houses, and fronts for same, with general interior fixtures. Models of brooder houses of different styles, feed troughs, self feeding hopper, grit bones, cold brooder and other fixtures in connection with poultry keeping. The exhibits were viewed by a large number of people at each stopping place, and a lecture was given dealing with housing, feeding, and other matters of interest.

During the month of June I attended a meeting of the executive of the Poultry Producers' Association of Canada at Ottawa, and the fourth annual meeting of the association the following day.

The executive meeting was attended by representatives of the various provinces and many matters were discussed relative to poultry matters in general and particularly with the object of a general co-operation and uniformity of action in poultry matters throughout the Dominion.

At the conclusion of the meeting of the executive the following resolutions were adopted by the members in session at the annual meeting, and presented by the executive in a body to the Honourable Martin Burrell, Minister of Agriculture:

That while this association appreciates the stimulus given to the canned poultry trade by the operation of The Meat and Canada Foods Act, it would ask that the regulations governing the inspection of meats should be amended in order that only undrawn poultry may be allowed to enter establishments under inspection, or enter into export trade.

Wc, the members of the Poultry Producers' Association of Canada in convention assembled, respectfully request that an invitation be extended to the World's Poultry Congress to hold its next convention in Canada in 1914.

Several meetings of this congress have been held in the old land, and members have expressed a desire through their secretary that the next meeting be held abroad. Canada would like and needs this meeting.

We therefore suggest that immediate action be taken before the

congress decides to meet elsewhere.

We, the members of the Poultry Producers' Association of Canada in annual session assembled, desire to call to your attention the following facts:

Whereas the poultry industry has assumed considerable proportions and is now the means of a large revenue to the farmers of Canada, and

Whereas though the production is gradually increasing we do not produce enough for home consumption as last year about four hundred carloads of eggs were imported from the United States alone, and

Whereas the marketing conditions in Canada are such that at least 15 per cent. of the value of eggs alone is lost to the industry largely because of the lack of education, and

Whereas the poultry industry does not obtain at the hands of the Dominion government what it is in all fairness entitled to, having received only about \$1,500.00 out of a total of over \$105,000.00 expended on the live stock industry in Canada last year.

We therefore respectfully submit for your consideration the following suggestions:

1. That the poultry department in connection with the experimental farm system be put on the same basis as the other departments of the farms, that is to say that there be a Dominion poultry husbandman whose duties shall be to oversee the experimental work in connection with the farm at Ottawa, and who in addition shall have supervision over the poultry work at the branch experimental farms. We would further suggest that each branch farm be equipped with a first class poultry department, and that a competent poultryman be appointed to each. Furthermore we wish to call your attention to the fact that the equipment be provided for investigation and experiment work.

2. That poultry disease investigations receive due consideration. The recent serious losses from blackhead in turkeys, tuberculosis in fowl, and diarrhoea in chicks have practically forced many people out of the business. We would, therefore, recommend that suitable men be employed and suitable equipment provided to conduct these investigations. The necessity for this will be readily understood when it is considered that there is no recognized authority in Canada on poultry diseases, the result being that any one wishing information writes to half a dozen sources and

gets as many different answers and methods of treatment.

3. That as there is no farm product marketed in a worse condition than dressed poultry and eggs, and the loss to the poultry producer and consumer being enormous, we suggest that steps be taken to prevent the losses in the marketing of eggs and dressed poultry by a campaign of education and demonstration followed by standardization and adequate legislation.

4. That your department provide for the Poultry Producers' Association of Canada an annual appropriation similar to that which is given to the Seed Growers' Association. The Poultry Producers' Association of Canada has for some years been endeavouring to induce the producer to adopt better methods of handling and grading of poultry products and to encourage co-operation as a better means of marketing for both the producer and the consumer. This valuable work has been severely handicapped from lack of funds to pay a permanent secretary.

All of which is respectfully submitted.

Dr. Chas. H. Higgins, Dominion pathologist, addressed the convention on the subject of poultry diseases. He diseussed with some detail tuberculosis in fowl, white diarrhoea in chicks, and blackhead in turkeys. He handed in a leaflet prepared by himself on tuberculosis in fowl. Copies of this leaflet which diseusses the disease fully were distributed among the members. Regarding white diarrhoea, Dr. Higgins said that he was not altogether satisfied that it is not due to a physical abnormity rather than an organism. If the egg sae be not all absorbed at birth, or within seventy hours of birth, and the chick fed before this sae be absorbed, it follows that the digestive organs are blocked, and the white exerement which is voided is really a discharge from the kidneys, such as uriates, etc., in which no organisms have so far been discovered.

Questioned by Mr. Elford as to the use of muriatic acid for blackhead in tarkeys, Dr. Higgins said that he had found it fairly effective though not infallible. He had used sulphate of iron, but this was less satisfactory. The organism causing the disease required an alkaline medium, and so if muriatic acid be kept before the fowl intermittently if not always the disease is likely to be checked by the fowl taking some of it into their digestive tracts and so having the alkaline medium neutralized.

An interesting address was also given by Dr. Barnes, chief inspector under The Meat and Canned Foods Act, who stated that thousands of cans of so-called poultry were formerly put on the market though it was known that very little poultry was canned. This business is now done away with, and there are to-day ten factories which can poultry exclusively. Last year they canned 378,447 pounds as compared with 15,578 pounds two years ago. But in regard to the examining of the fowl used in these canning factories there can be no proper system of inspection for the fowl are taken in already drawn. Prof. Graham pointed out that it was just such fowl as went into a canning factory that most required inspection.

Mr. J. II. Hare, district representative of the Ontario Department of Agriculture, spoke of the co-operative handling of poultry products in the country following the methods advanced by the P. P. A. For some two years past Mr. Hare and two assistants have been working along these lines. They began by taking as far as they were able a careful census of the farms as to the fowl kept and the state of these fowl. Mr. Hare said that the two greatest drawbacks he found in his district were the small flocks kept and the lateness of hatching the chicks. He found also that about 30 per cent. got no eggs at all during the winter, while about 7 per cent. had present in their flocks some serious disease, chiefly tuberculosis.

Mr. Hare's work came under two heads, viz., demonstration and organization. In connection with the former he had built on the farm of one of his patrons, an enthusiastic poultry woman, who hitherto had not been able to get winter eggs, a demonstration poultry house at a cost of \$45.00. He selected thirty fowl, which he sold to his patron, who fed and kept them under his direction during the winter months. Her records showed that for the three winter months she had made a clear profit of 60 cents per hen. Later she sold a great many eggs from these hens to her neighbors for breeding purposes. The demonstration house was a source of much interest in the district, and many enquiries were made with reference to it, and the means adopted to secure eggs in winter. Mr. Hare found out that demonstration was preferable to lecturing.

In regard to the organization work, Mr. Hare recognized the futility of proper marketing in the present system of handling. Co-operative "circles" were therefore begun in districts where at least twenty farmers expressed willingness to join. But many difficulties were encountered. About 80 per cent. refused absolutely to have anything to do with the circles until the experience of others showed that better prices were the result. However, in time this backwardness was overcome by offering them the agency for the circle's eggs. In one district, however, a huckster raised his price to one cent per dozen over the circle's price but the members stood loyal to the circle, understanding doubtless that were the circle to be put out of business the same unsatisfactory state as obtained previous to its inception would return. Questioned as to whether without his attention, advice and work the circles would continue, Mr. Hare stated that he saw no reason why they should not continue after a reason-

able period of guidance. Mr. Hare introduced the stamp system for eggs in his district, and at the end of his address handed round a sample

giving the circle number and number of member.

During my visit in the east I found that the movement for more and better poultry has grown very fast during the past few years, and that throughout the eastern provinces the producers are paying much better attention than formerly to marketing a better quality of poultry and eggs. I found a very marked improvement in the eggs on the market. Special select eggs being marketed in one and two dozen cartons stamped with a guarantee as to quality.

STATISTICAL RETURNS.

During the month of June a number of forms were sent out to leading poultry raisers in various districts of the province with the object of securing reliable data as to the existing conditions regarding poultry matters. These forms were filled in by the persons receiving them to the best of their knowledge and judgment.

A summary of the returns is as follows:

Average	number of hens kept on each farm	195
••	percentage of fertile eggs	86%
••	of chickens hatched	67.8%
••	" of eggs laid in winter months	29.8%
,,	price during winter months	
"	price during summer months	30c
Highest	price for season	60c
Lowest]	price for season	20.69c

A great deal of other information most valuable to the poultry branch was received, and the returns in general indicated that more and better poultry was being kept than in former years, and that the demand for breeding stock, and eggs for hatching, was much greater than the supply.

The returns indicated that eggs for hatching from good utility breeds sell at from \$1.00 to \$2.00 per setting, while popular price for eggs from

exhibition pens is from \$3.00 to \$5.00 per setting.

The popular prices for utility breeding stock ranged from \$1.50 to \$2.50 per bird, while exhibition stock ranged from \$3.00 to \$10.00 per bird. Special instances however may be noted where from \$50.00 to \$100.00 have been paid for good specimens of exhibition birds.

POULTRY SHOWS AND EXHIBITIONS.

In the matter of exhibition poultry there has been a remarkable development. The rapid advancement that has been made in quality and numbers at the summer fairs and winter poultry shows can be rightly understood only by visiting these shows.

Three or four years ago very little attention was paid to poultry exhibits at the majority of summer fairs, while during the past year the poultry exhibit has been a prominent feature at many of the fairs. At Lethbridge, Calgary and Edmonton exhibitions the entries ranged from 800 to as high as 1500 or more birds. While at smaller fairs such as Medicine Hat, Granum, Leduc, Fort Saskatchewan, Vegreville and Vermilion entries ranged from 150 to as high as over 900 at Leduc. While until recently the entries were largely confined to fanciers and poultry keepers living in the towns and cities, the large number of

farmers exhibiting and securing prizes is a good indication that the farmers throughout the province are not only interesting themselves in pure bred poultry, but are specializing in exhibition birds as well.

There has also been a marked improvement both in quality and number of birds shown at the winter poultry shows. Winter poultry shows were held at Medicine Hat, Lethbridge, Calgary, Edmonton,

Stavely, Granum, Taber, Pincher Creek, Magrath and Macleod.

The younger shows having as large an entry and a better quality than our larger shows had five or six years ago. At our larger shows, i.e., Lethbridge, Calgary and Edmonton, the entries ranged from 1000 to 1700 birds, these shows being held in permanent poultry buildings. A new feature in winter poultry shows was demonstrated at Calgary during the month of November when a poultry and fat stock show was held in the horse show building. This show was a decided success, some 1700 entries in the poultry classes being exhibited. The horse show arena provided ample room to make a much more attractive display than it was possible to secure in the old poultry show building.

In connection with the show addresses were given in the matter of housing, feeding and caring for poultry in general, with demonstrations

on killing and preparing poultry for market.

The combined poultry and fat stock show was pronounced by exhibitors generally a decided success and the prospects for the future arc decidedly encouraging.

Some of our winter poultry shows have grown so rapidly that they have outgrown the original grant of \$300.00 under The Agricultural

Societies Ordinance.

With the objects of meeting the requirements of such associations and to further encourage the industry the provincial legislature recently amended the Ordinance so that associations paying out \$500.00 or more in prize money receive a grant of 66 2-3% of the money actually paid out in prizes.

POULTRY PLANT.

During 1912 the demand on the poultry plant for breeding stock and eggs for hatching has been greater than in any previous year. A large number of eggs were sent out for hatching purposes, but owing to the small capacity of the plant we were unable to supply but a small proportion of the eggs required.

Those who sent us orders that we were unable to fill were referred to reliable breeders who might be in a position to supply the eggs required. In some cases, however, I found that the breeders had already booked orders for all the eggs they had to spare and many persons requiring

eggs were unable to secure them at all.

The demand for breeding stock was equally as great, and while many applications were referred to the breeders of the province they were unable to secure the required stock, with the result that thousands of breeding stock are required in the province at the present time without a

supply sufficient to meet the demand.

During the year very little progress was made with the poultry plant. First because it remained throughout the year without a competent manager, and again because the lease with the Hudson Bay Co. had expired and a delay was necessary to secure suitable grounds on which to move the plant and to reach a decision regarding a policy of the future of the plant.

Suitable grounds were finally secured on a portion of the University farm, and late in the fall the plant was transferred to its new location.

In the meantime a new and progressive policy was decided on by the Minister that is now being carried out by the Poultry Branch of the department.

At the new poultry plant a number of new houses have been built with the object of increasing the housing accommodation to one thousand bird capacity. The continuous house system has been dispensed with and the colony house system adopted. The intention being to confine the breeds separately on large runs giving the breeding stock more liberal range than formerly.

The additional stock for the new plant has been secured by an order of 1000 birds imported from Ontario. The stock ordered from the east being of exceptional good quality with special attention given to their egg producing qualities. The breeds purchased and kept at the plant will be the same as formerly, *i.e.*, Barred and White Roeks, Buff Orpingtons, White Wyandottes, Rhode Island Reds and White Leghorns.

A new feature of the policy of the poultry branch is the loaning of male birds to farmers to assist them in the improvement of their flocks. Regulations governing the loaning of male birds are as follows:

I herewith make application for the free use of a male bird for my flock of poultry.

My present flock consists of.......females of.......breed.

I desire to hatch about.........during the season.

From my present flock I can select.......females that are superior to the others and more suitable for hatching a higher quality of poultry.

For the privilege of securing a male bird I agree to the following conditions:

- (1) To kill or remove from the farm any or all male birds I may have, and neither keep or allow to be kept any male birds or bird other than the birds or bird supplied by the department.
- (2) To accept the bird or birds sent me on or about March 1st and to return same in good condition, charges paid, not later than the 15th of May following.
- (3) That when the young males reach the weight of from 4 to 4½ lbs. I will separate them from all females and fatten them for market.
 NOTE: Birds put on flesh at this weight more readily than when older.
- (4) That in case the bird or birds sent me die or meet with accident I agree to pay the department by May 15th the sum of \$2.00 for each bird received.
- (5) That I will give attention to the matter of housing and caring for my poultry, and follow as far as I reasonably can any instructions that may be sent me by the department.
- (6) That I will for my own benefit keep a record of the returns from my flock, and furnish same to the department if required either monthly or annually on forms sent me by the department.
 - (7) That I will market only infertile eggs from June 1st to March 1st. NOTE: Eggs are fertilized ten days after the male birds have been placed with the hens, and infertile ten days after the males have been removed.
- (8) That my poultry plant be free to inspection by the department at any time, and that I will give attention to reasonable suggestions considered beneficial to my success.

7 M	
Express officePost office	

In consideration of the above conditions being fulfilled the Poultry Branch of the Department of Agriculture will render reasonable assistance in securing good markets for those who take a special interest in their poultry.

It is hoped that by the loaning of male birds for the breeding season only the farmers will see the advantage of producing only infertile eggs for market, and do much to overcome the poor condition in which a great

many eggs are marketed as mentioned earlier in this report.

Arrangements have also been made for the shipping out of day old chicks for the season of 1913. A 2400 egg Candee Mammoth incubator was ordered especially for this work. It is hoped that a great deal better service will be rendered to the people of the province in this way, and much of the loss and breakage due to the rough handling of eggs by express companies will be overcome, as the chicks will ship more readily than the eggs.

Often too eggs that have been roughly handled fail to give good hatching results, and under this system the department takes the responsibility for the hatching and sends out the chicks at \$2.50 per dozen, \$4.00 per 25, and \$7.50 per 50, which should prove cheaper and more satisfactory than in the sending out of eggs. The eggs, however,

will still be sent out to persons desiring same.

These with other matters that are being formulated for the year 1913 will I believe be much more effective in developing the objects the plant is intended to serve and will be much more satisfactory than in any

previous year.

For some time past the work of the poultry plant has been somewhat handicapped through the lack of a suitable person as manager. This difficulty has now been overcome by the appointment of Mr. Joseph Shackleton, Olds, as manager of the new plant. Mr. Shackleton has for a number of years been a successful breeder of poultry in the province and is well and favourably known to poultry fraternity generally and will, I believe, make a success of the new plant and its work.

I am, Sir, Your obedient servant,

A. W. FOLEY,

Poultry Superintendent.

6.—REPORT OF RECORDER OF BRANDS.

SIR,—I have the honour to submit the following report on the work of this branch of your department for the year 1912.

During this period 1545 horse, and 1542 cattle brands were allotted and recorded, and 374 transfers and 16 changes were recorded, while the extracts numbered 22, and searches and estrays 1633, being a total of 5132 transactions.

Compared with the previous year these figures show an increase of 7 horse and 262 cattle brands, 12 transfers and 247 searches and estrays, while the changes asked for have decreased by 16, showing a net increase of 512 in the number of transactions. An average of the previous five years shows 1374 horse and 1346 cattle brands allotted and recorded, and as will be seen from the foregoing, horse brands give an increase of 171, and cattle brands 196, above these figures.

The number of letters received during the year was 5519, while the number of documents despatched was 8998, a total of 14,517, being an increase of 651.

One feature of the above statement stands out boldly, and that is, the increased number of persons applying for cattle brands—some 262 more than the previous year. There can be no doubt that the propaganda now being carried out by the department of agriculture for the province, and the stand taken by the lands department of the Canadian Pacific Railway to encourage the farmers of the province to take up mixed farming is bearing good fruit, and with the enhanced price of beef farmers are now utilizing most of the feed they only a few years ago used to burn. Whether the report of the Grazing Commission to grant closed leases and to lay aside the wild and rough lands in various parts of the province for purely grazing purposes, be acted upon or not, remains to be seen. The move suggested, however, would undoubtedly give an immediate impetus and a permanency to the business of cattle raising, but whether it will be mixed farming alone or grazing under closed leases, there can be no doubt that for the future the cattle business will have much greater care bestowed upon it than in the past, and care will be taken to see that during the winter months at least all cattle will be under fence and properly fed.

For the past year I find the large proportion of the brands issued for horses and cattle, have been to parties living near the main line of the Canadian Pacific Railway and Crow's Nest Railway and north of Medicine Hat, but it is also noticeable that brand applications from settlers living near the districts recently opened up by the Grand Trunk Pacific and the Canadian Northern as well as the other branches east of the Calgary and Edmonton line are becoming more numerous, while quite a number have been received from the Peace River and Grand Prairie country.

As to the amended Stray Animals Ordinance of 1908, this is being still better understood. The number of cases reported to this office go on increasing. During the past year 1655 cases were reported, being an increase of 247 over 1911. Each finder is written to acknowledging his report and if the animal bears a recorded brand the name and address

of the owner is given to him, while every owner is given a full description of the animal, and as near as possible the exact location of where the animal is being held.

Instructions have been received from the department to issue a supplement to the brand book for the years 1907, 1908, 1909, 1910, 1911 and 1912, and this work is being prepared at present and will be published as soon as completed, but as the book will contain over 19,000 entries, it will naturally take some considerable time.

The following is a statement showing the transactions from 1898 up to 31st December 1912:

TRANSFERS.

	TRANSPIRS.	
1899.		132
		165
		222
1902		265
		400
		402
1904.	/AV TTY Manufacture	
1905	(N. W. Territories)	299
	(Alberta)	120
		389
		430
1908.		421
1909.		430
1910.		524
1911.		362
		374
1012.		•••
	CHANGES.	
1000		
		0.7
		27
1901.		20
1902		26
1903.		43
1904 .		43
1905	(N. W. Territories)	32
	(Alberta)	7
1906.		38
1907.		28
1908.		29
1909.		33
1910.		34
1911.		32
		16
1912.		10
	SEARCHES AND EXTRACTS.	
1899.		::
1900.		35
1901 .		42
		100
1902 .		144
		124
1903. 1904. 1905	(N. W. Territories)	81
1903. 1904. 1905	(N. W. Territories)	81 13
1903. 1904. 1905	(N. W. Territories)	13
1903. 1904. 1905 1906.	(N. W. Territories)	13 73
1903. 1904. 1905 1906. 1907.	(N. W. Territories)	13 73 73
1903. 1904. 1905 1906. 1907. 1908	(N. W. Territories)	13 73 73 292
1903. 1904. 1905 1906. 1907. 1908 1909.	(N. W. Territories) (Alberta) (Including strays)	13 73 73 292 783
1903. 1904. 1905 1906. 1907. 1908 1909. 1910.	(N. W. Territories) (Alberta) (Including strays)	13 73 73 292 783 1218
1903. 1904. 1905 1906. 1907. 1908 1909.	(N. W. Territories) (Alberta) (Including strays)	13 73 73 292 783

Number of brands re-allotted in 1898.....

CATTLE BRANDS.

CATTLE BRANDS.	
1898	2111
1899	1466
1900	1508
1901	1689
1902	1934
1903	2390
1904	2034
1905 (N. W. Territories)	1353
	337
(Alberta)	1894
1906	
1907	1230
1908.	1225
1909	1326
1910	1672
1911	1280
1912	1542
HORSE BRANDS.	
1000	941
1898	
1899	
1900	
1901	
1902	1234
1903	
1904	. 1346
1905 (N. W. Territories)	
(Alberta)	
1906	
1907	
1908	
1909	
1910	
1911	
1912	1545
TOTAL TRANSACTIONS.	
4000	6280
1898	2419
1899	
1900	
1901	
1902	
1903	
1904	
1905 (N. W. Territories)	
(Alberta	
1906	3756
1907	2791
1908	. 3070
1909	3880
1910	
1911	
1912	. 51 32

Respectfully submitted,

JAMES WILSON,

Recorder of Brands.

7.—REPORT OF THE SUPERINTENDENT OF FAIRS AND INSTITUTES.

SIR,—I beg to present herewith the annual report of the Superintendent of Fairs and Institutes for the year 1912.

EDUCATIONAL WORK.

During the year institute meetings were held at 135 points throughout the province. Arrangements were made to hold as many as possible of these meetings at points some distance from railroads where nothing of this nature had been held previously. A new plan was also adopted in regard to advertising. In past years it has been the practice to forward advertising matter to some local man, with a request that he make arrangements for the meeting and look after the advertising. In many cases this advertising matter did not reach the persons who were sufficiently interested to attend to it properly and the result was that when the speaker arrived there had been no arrangement made for a hall and consequently no attendance.

During the month of December 1911, an advance agent was sent out to visit each point at which an institute meeting was to be held and carried with him advertising matter which he left with an interested person who would see that the advertising was properly done. Arrangements were also made for halls by the advance agent.

This plan proved a much greater success as a means of advertising. The attendance was greatly increased at practically all points and the arrangements made by the advance agent were carried through without a hitch.

Fourteen speakers were employed, two addressing each meeting. These were all men of wide practical experience who were especially competent to discuss their respective subjects. Practically every speaker reported a marked interest in the meetings throughout and in most places the farmers in attendance took part in the discussions following the address of the speaker.

Much valuable information which will be of use to the department was collected during these discussions.

INSTITUTE MEETINGS.

The following is a list of meetings addressed by D. W. Warner, Esq., on hog raising or dairying, and Miss Trench on poultry raising:

Tonuo.	rv 9
Bowden Januar	
Red Lodge"	10
Dame Hall"	11
	12
Eagle Valley School"	
Berridale School"	13
Olds"	22
0.000	23
Betchton School"	
Mayton"	24
Curlew	25
	26
Trochu	
Three Hills"	27
Swalwell "	29
	30
Munson"	90

Sunny Slope	bruary 1
Didsbury	" 2
Carstalrs	" 3
Crossfield	" 5
Alrdrie	" 6
Mldnapore	" 7
Prlddis	" 8
DeWinton	" ğ
Okotoks	" 10
High River	" 12
Cayley	" 13
Nanton	" 14
Parkland	" 15
Stavely	" 16
Claresholm	" 17

The following list of meetings were addressed by W. J. Shuttleworth Esq., Delourne, Alta., on breeding and care of dairy cattle, and J. T. Worthington Esq., Strathmore, Alta., on poultry raising:

EntwistleJan		10
Rexpord	,,	11
Wabamun	,	12
Stony Plaln	,,	13
Spruce Grove	••	15
Namao	,	16
Bon Accord	,,	17
Legal	,,	18
Morinvllle	••	19
Rivlere Qul Barre	••	20
Dunstable'	,	22
Paddle River	•	23
	• •	25
	•	26
Ryley.	,	27
Holden	• •	29
Vlklng	• •	30
	,	31
Wainwright Feb	rnarv	
	,	2
	,	3
	11	5
	,	6
		7
	,	8
	,	9
	,	10
	,	12
	,	13
	,	
Milnerton		14

Guy W. Johnson Esq., Provost, addressed the following meetings on soil culture and crops, and G. H. Hutton Esq., Lacombe, on breeding and care of dairy cattle:

CliveJan	uary 15
Alix	" 16
Bullocksville	" 17
Cumberland School	" 18
Red Wing School	" 19
Castor	23
Stettler	., 24
Red Willow	" 25

Messrs. D. N. McIntyre and E. J. Cook addressed the following meetings on breeding and care of dairy cattle and poultry raising, respectively:

Fort Saskatchewan January	9
Lamont"	10
Chipman	11
Mundare"	12
Vegreville"	13
Brosseau"	14
St. Paul de Metis"	17
Elk Point	18
Clarkville"	19
Lac St. Vincent "	20
Innisfree"	24
Chailey"	25
Manville "	26
Vermilion "	27
Kitscoty"	29
Lee Park"	30
Tring"	31
McDonaldsvilleFebruar	y 1
Lloydminster"	2
Ponoka"	5
Bismark"	6
Rimbey "	7
Bentley"	8
Lacombe"	9

The following meetings were addressed by P. S. Iddington Esq., Okotoks, Alta., on breeding and care of dairy cattle, and A. W. Foley Esq., poultry superintendent for the province, on poultry raising:

ProvostJanuar	у 8
Hughenden"	9
Hardisty"	10
Bellshill"	11
Flagstaff"	12
Grainland"	13
Sedgewick"	15
Killam"	16
Daysland"	17
Bawlf"	18
Camrose"	19
Edberg "	20

George Fraser Esq., Edmonton, lectured on breeding and care of dairy cattle, and W. H. Fairfield Esq., superintendent of the Dominion Experimental Farm, Lethbridge, lectured on alfalfa, at the following list of meetings:

Strathmore	February 6
Gleichen	
Bassano	" 8
Medicine Hat	. " 13
Irvine	" 14
Josephsburg	" 15

The following list of meetings were addressed by George Hutton Esq., Lacombe, and A. Mitchell Esq., Coaldale, on breeding and care of dairy cattle, and noxious weeds and forestry, respectively:

GranumJa	anuary	9
Macleod	,,	10
Cowley	,.	11
Pincher Creek	••	12
Monarch	**	13

Barons Janua	ry 15
Carmangay"	16
Bowville"	17
Champion"	18
Reid Hill"	19
Vulcan"	20
Taber Februa	
	2
Stirling	3
Raymond	-
magratin	5
Cardston	6
Mountain View	7
Kimball"	8
Warner "	10
Altorado"	13
Cochran€Januar	ry 23
Langdon "	24
Acme "	25
Irricana	26
	29
Seven Persons	
Bow island	30
Grassy Lake "	31

SHORT COURSE WORK.

Short Course Schools were held as follows:

Claresholm	January 15 to January 20.
Gleichen	January 22 to January 27.
Stony Plain	January 29 to February 3.
Olds	February 5 to February 10

Short Course Schools held this year were limited to one week instead of two weeks as was the custom in previous years. This was found to be more effective as a high point of interest was maintained throughout the course. Experience had proven that two weeks was just a trifle too long as the interest usually began to lag during the latter part of the last week.

The programme of addresses at these schools was very similar to that given in previous years.

The following subjects were discussed:

Live Stock.

Instruction was given in breed types, feeding, breeding, care and management of live stock.

Grain-Soil and Weeds.

The growing, judging and grading of grains, soil cultivation, noxious weeds, grasses and fodder crops. Samples of grains and weeds were used for demonstration.

Poultry.

The housing, feeding, hatching and rearing. Incubators and brooders were in operation. Birds were fattened, killed, dressed and packed for market.

Dairying.

Instruction in dairying covered the subject from the production of milk to the marketing of the finished product with farm dairy machinery in operation.

Domestic Science.

This branch of the work was conducted by Miss MacAdams and Miss Perkins, graduates of Macdonald Institute, Guelph, Ont.

Practical demonstrations were given in the preparation and cooking of soups, meats, tough and tender cuts, vegetables, desserts, bread, cakes, pastry and the general cookery of the average household. There was a discussion of household sanitation and the prevention of disease.

At each course there were judging competitions held and prizes offered for proficiency.

GRAND CHAMPIONSHIP COMPETITION.

A Grand Challenge Trophy was offered by the department of agriculture, open for competition to teams from the four schools. The four men standing highest at the local competitions formed the teams to compete for this trophy.

TEAMS.

GLEICHEN. G. Westover. De Winton. W. H. McEwen Carlstadt. J. Ostrander Gleichen. F. W. Jones Gleichen.
OLDS. A. M. McGorman Junisfail. W. T. McClure Innisfail. James Richards Red Deer. W. S. McKinnon Olds.
CLARESHOLM. G. E. A. Malchow. L. A. Perry. J. Gaudin.
STONY PLAIN. E. B. Shields Wabamun. E. Priestly Onoway. J. Tweedale Stony Plain. W. Williams Inga.

The department is very grateful to the following breeders of live stock who so kindly loaned their stock for use at the schools:

STOCK.	OW	NER.	A	DDRESS.
3 Percheron	stallions J. C.	Drury	Cov	wle y .
2 Clydesdal	esJohn	Richards	Red	Deer.
3 Clydesdale	e maresJohn	Jamleson	Hal	klrk.
3 Percheron	maresJ. C.	Drury	Cov	vley.
1 Percheron	mareJ. C.	Lyle	Str	ome.
2 Shorthorn	bulls Bryce	Wright	De	Winton.
3 Shorthorn	cowsBryce	Wright	De	Winton.
2 Ayreshlre	bullsRolan	d Ness	De	Winton.
3 Ayreshlre	cowsRolan	d Ness	De	Winton.
3 Holstein	cowsThom	as Laycock	Cal	gary.

The following is a list of speakers who composed the staff of the Short Course Schools:

> Miss Roberta McAdams, Macdonald College, Guelph, Ont. Hon. Duncan Marshall, Minister of Agriculture. George Harcourt, B.S.A., Deputy Minister of Agriculture.

Prof. Carlyle, Moscow University, Idaho.
C. E. Lewis, B.A., B.S.A., Supt. Fairs and Institutes, Edmonton. A. McKenney, B.S.A., Supt. Seed and Weed Branch, Edmonton. W. F. Stevens, Live Stock Commissioner, Edmonton. A. W. Foley, Poultry Superintendent, Edmonton.

Roland Ness, De Winton, Alta. Bryce Wright, De Winton, Alta. H. B. Smith, B.S.A., Calgary.

C. P. Marker, Dairy Commissioner, Calgary. H. S. Pearson, Dairy Instructor, Red Deer. G. W. Scott, Dairy Instructor, Innisfail.

The programme at these schools was very similar to that given in previous years, with the exception, that a short course in domestic science was put on, as an adjunct to the short courses in agriculture, and the interest and enthusiasm with which this was received seemed to indicate that the time was ripe for a permanent provision to assist women's work on the farme and in the homes.

With this in view it is now proposed to organize a system of women's clubs or institutes under departmental supervision having as its object the consideration and simplifying of all problems pertaining to the home. and consequent achievement of better home conditions and the increase of the general fund of comfort, health and efficiency. The study of home economics, including as it does, household architecture, sanitation and hygiene, scientific nutrition, the care and training of children, and the knowledge of values relative and absolute, of household materials, will come in for a large share of attention. Mutual helpfulness will be urged, and social intercourse, which effects the development of an important side of human nature will be encouraged. In brief, a conscious effort will be made to promote the highest ideals of home, and the best standards of community life.

As the institutes are to be strictly non-sectarian and non-partizan, and as their object is one which must immediately enlist the sympathies of every thinking woman (they will have a very broad scope. Everyone who becomes a member may look forward not only to being assisted, but also to the privilege of contributing something for the help of others.

THE MIXED FARMING SPECIAL TRAIN.

The Mixed Farming Demonstration train which was conducted by the department of agriculture, through the province of Alberta, visiting sixty points in the province, contained three cars of pure bred live stock, including Percheron horses, Clydesdale horses, Shorthorn cattle, Ayreshires, Holsteins, and Oxford Down sheep.

Two baggage cars were fitted up with poultry equipment including different breeds of live poultry, also dressed poultry and models of

poultry houses.

The grain car contained samples of the different varieties of wheat grown in Alberta; sheaves of wheat and mounted specimens of the various noxious weeds found in the province. Models of hog houses were carried, varying in price from \$10 to \$500.

The dairy car contained equipment for making butter and the subject was covered from production of milk to the marketing of the finished product.

Ten instructors were with the train and discussed farming in all its

phases. Two stops were made each day.

The farmers showed a great interest in the work and I do not think we have carried on any extension work in the province that has taken better with the farmers and that did the same amount of good to advance the interests of agriculture.

The attendance was good considering the fact that the train was run when the farmers were busy harvesting.

ATTENDANCE AT DIFFERENT POINTS VISITED BY MIXED FARMING SPECIAL TRAIN.

Cochrane	150
Langdon	100
Bassano	85
Brooks	90
Carlstadt	150
Irvine	125
Walsh	125
Bow Island	150
Taber	125
Stlrling	100
Raymond	150
Magrath	225
Cardston	200
Carmangay	225
Vulcan	225
Okotoks	100
High River	150
Cowley	100
Cowley	175
Pincher Creek	
Stavely	125
Nanton	150
Crossfield	50
Didsbury	100
Red Deer	100
Bowden	120
Coronation	200
Castor	150
Stettler	125
Alix	75
Kitscoty	100
Ponoka	300
Wetaskiwln	250
Hardisty	150
Provost	175
Killam	175
Daysland	125
Leduc	100
Camrose	350
Swalwell	75
Three Hills	100
Trochu	125
Huxley	75
Tofield	100
Holden,	200
Vlking	125
Irma	150
Wainwright	75
Edgerton	150
St. Albert	75
Dt. Aivoit	

Morinville	175
Fort Saskatchewan	75
Vegreville	175
Munson	250
Big Valley	75
Red Willow	150
Donaldo	150
Innlsfree	125
Manville	150
Lloydmlnster	150
Lamont	125
Total	8520

EXCURSIONS TO EXPERIMENTAL FARMS.

An excursion was run by this department to the experimental farm, Lethbridge, on July 23rd, stopping at all points between Medicine Hat and Lethbridge.

Excursions were also run from Strathcona to Lacombe, and from Calgary to Lacombe on July 29th, stopping at all intervening points.

The arrangements and advertising for these excursions were in charge of this department, and the number who visited the experimental farm was much greater this year than any previous year.

The superintendents of the experimental farms expressed themselves as well pleased with the attendance and the interest manifested by the visitors in the various lines of work being taken up on these farms.

The following is a list of the fairs held during 1912, together with the dates, names and addresses of the judges:

FAIR	DAT	E	JUDGE :	FOR HORSES	JUNGE FOR CA	ATTLE, SHEEP SWINE
Innisfail . Calgary	July 16-17 June 28 to July 17-18	7 E July 5	V. J. Stark Bryce Wrig	, Edmonton ht, DeWinton	1	r, Innisfree
Edmonton	Aug. 12-1	Л	(Clydesda . C. Drenn ford. (P	an, North Battle- ercherons, Belgians	Ontario. G. H. Huttor	tle and Sprine)
Ft. Saskatchewan.		. Γ[.	'. Rawlinso	on, Wimborne, Alta	W. H. Hamm	ier, Olds, Alta
	Sept. 13	.1	•••	••	1	**
	Sept. 17		44	••	1	**
	Sept. 19 .		**	**	, ,,	**
	Sept. 20 .	. 1	**	**		••
Kitscoty	Sept. 24	. 1	**	**		**
lovdminster .	Sept. 26	1	**	**	1 "	**
Bowden.	Oct. 1.		**	**		**
Chauvin .	Oct. 4			**	**	**
Cochrane	Sept. 10	. N	leil Smith,	Brampton, Ont	A. W. McInt	yre, Newington
Edgerton	Sept. 13		41		Ontairo.	**
	Sept. 17	i			**	
		٠,	4.4			
	Sept. 19 Sept. 24	1	41	11		
		1	44		1	**
	Sept. 26	· ·)		**		**
	Sept. 27.	. !				
	Oct. 1					
	Oct. 2-3.	1				
	Oct. 7					
	Sept. 17-18		. H. Youn	g, Glencoe, Ont	James Hunte	r, innistree
	Sept. 20		**		1	
	Sept. 24		"		1	
	Sept. 24-25			" .		
tettler	Sept. 26-27	·		"	"	4.
	Oct. 1-2	, 1	44	**		
	Oct. 3.				. ::	**
	Oct. 3-4		**	"		**
	Sept. 10 .	, JA	. J. Murph	y, Cochrane, Alta.	T. H. Tinney	, Medicine Hat
	Sept. 12 .		** -		"	"
texboro	Sept. 18.		**	**	11	**
	Sept. 20			**	"	41
	Sept 21		**	**	54	44
	Sept. 26-27		4.4	44	44	44

FAIR	DATE	JUDGE F	OR HORSES		CATTLE, SHEED SWINE
Warner	Sept. 10-11.	W. J. Stark, E	dmonton, Alta.	W. S. Jacobs,	Munson, Alta.
	Sept. 12-14 .	"	**	· · ·	**
	Sept. 17-18	**	**		**
	Sept. 20-21	**	**	**	**
Carmangay .	Sept. 24-25.		**		**
Taber	Sept. 26-27.	- "	••		**
Nanton	Sept. 30 to Oct. 1		**	••	**
Pincber Creek	Oct. 3	4.	**		**
Priddis &	ì	1		i i	
Millarville .	Oct. 4.	**	••	••	**
Acme	Oct. 7-8.	**			**
Red Deer .	Aug. 21-23	Bryce Wright.	DeWinton, Alta	H. B. Smith.	Calgary, Alta
Killam.	Sept. 6		**	4.4	***
Olds	Sept. 11-12	**	**	**	**
Leduc	Sept. 17	••	••	••	••
Lacombe	Sept. 18-19	••	**	••	**
Daysland	Sept. 24		•	••	••
Hardistv .	Sept. 25-26		**	**	••
Macleod	Aug. 1-2	W R Lowes.	Edmonton, Alta	H. B. Smith,	Calgary, Alta.
Claresbolm .	Aug. 8-9.			44	
	Aug. 26-29	**	**	14	**
	Aug. 30-31	44	**	**	**
	Aug. 6-7.	Dr. McKerche	er, Olds, Alta	H. B. Smith,	Calgary, Alta.
Staveley	Aug. 13	**	**	**	- "
Gadsby .	Oct. 1	**	**	**	44
Elk Point	Sept. 25.	H. W. Scott.	Vermilion, Alta.	H. W. Scott,	Vermilion, Alta
Lesser Slave Lake					·
North Alberta	Sept. 14				
Peace River	Sept. 26				
Lousana	Oct. 4.	H. Taylor, Ca	stor, Alberta	H. Taylor, C	astor, Alberta.
Mid. Pembina		D. Tinney, C.	astor, Alberta	D. Tinney, C	astor, Alberta.
Grand Prairie	Sept 26-27				

FAIRS.

There is a marked increase throughout the province in agricultural fairs. Many new societies are being organized and a considerable number of the older societies are improving their grounds and buildings and the number and quality of exhibits is rapidly improving. Many of the societies are paying greater attention to the educational features of the fairs. Judging rings where those in attendance can watch the work of the judge have been established in a large number of fair grounds during the past year.

Judging competitions, prizes for collections of plants and insects are also forming a very important educational feature of the more progressive exhibitions. In fact the local fair is becoming a very important factor in agricultural education throughout the province.

During the past year seventeen new agricultural societies have been organized as follows:

SOCIETY.

ADDRESS.

Legal Agricultural SocietyLegai.
Chauvin Agricultural Society Chauvin.
Saskatoon Lake and Beaver Lodge Beaver Lodge.
Onoway Agricultural SocietyOnoway.
Nakamun and DistrictNakamun.
Bassano Agricuiturai SocietyBassano.
Lousana Agricuiturai SocietyLousana.
Coronation Agricultural SocietyCoronation.
Peace River Agricultural SocietyShaftesbury.
Carbon Agricultural SocietyCarbon.
Gopher Head Agricultural SocietyGopher Head.
Winnifred Agricultural SocietyWinnifred.
Gadsby Agricuiturai SocietyGadsby.
Edson Agricultural Society Edson
Spirit River Agricultural SocietySpirit River.
Chinook Agricultural Society Chinook.
Cereal Agriculturai SocietyCereal.

LIST OF AGRICULTURAL SOCIETIES AND SECRETARIES FOR 1913. $Revised\ January\ 23,\ 1913.$

SOCIETY	SECRETARY	ADDRESS
		Airdrie.
Alix	G H Darlow	Alix.
Acme	W Bannerman	Acme.
Bowden		Bowden.
Bassano		
Cardston	T V Cord	Cardston
Claresholm	T B Watt	Claresholm
Chauvin.		
Coronation	A O Thomas	Coronation
Carbon	T A Welken	Carbon
Camrose		
Crossfield Cochrane	A. E. Chicklend	Coobrone
Castor	A. E. Stickland	Cochiano.
Carmangay	A. F. Wilson	Carmangay.
Cereal		
Chinook	Lorne Proudioot.	Chinook.
Didsbury	H. B. Atkins	Didsbury.
Daysland	A. A. P. McDowell	Daysland.
Deserett (Magrath)	Benj. Matkin	Magrath.
Entwistle	J. D. Read	Entwistle.
Elk Point	C. M. Mangusson.	Elk Point.
Edgerton		
Edson	F. W. Laycock	Edson.
Fort Saskatchewan	G. T. Montgomery	Ft. Saskatchewa
Gleichen		
Granum	Jas. Blair	Granum.
Grande Prairie	David Axon	Grande Prairie.
Gopher Head	R. E. Baldridge	Gopher Head.
Gadsby	C. P. Garvey	Gadsby.
High River	Harry Nelson	High River.
Holden	John Ballard	Holden.
Hardisty	Alex Mursell	Hardisty.
Innisfail	Stuart Moore	Innisfail.
Irvine	L. R. Harris	Irvine.
Innisfree		
Irma	E. T. McDowell.	Irma.
Kitscotty		
Lacombe		
Lethbridge		
Leduc	C. W. Carroll	Leduc.
Lloydminster	H. Huxley	Lloydminster.
Langdon	Omar Botsford	Langdon.
Lesser Slave Lake		
Legal		
Lousana	H S Murray	Longana
Macleod	Pohert E Mercer	Maalaad
Medicine Hat	H Haggard	Madicine Hat
Manville	G B Macdonald	Monville
Mid-Pembina	Charles Welch	Hanville.
Munson	W G Toobs	Mungon
Nanton	Wm Robertson	Monton
Milnoston	T W Moore	Nanton.
Milnerton	D. W. Meers	Wimporne.
Nakamun	P. P. Comphan	Nakamun.
Olds		
Okotoks	E. A. Hayes	OKOTOKS.
Onoway	wm. C. Turnbull	Onoway
	.ij. w. Harwood	Pincher Creek.
Pincher Creek	FT TT TT-4-1.1-	

SOCIETY	SECRETARY	ADDRESS
Provost	G. L. Hamilton	Provost.
Paddle River	A. C. Slaughter	Paddle River.
Peace River	J. E. Carson	Shaftesbury.
North Alta, Agrl. Soc	J. M. Milne	Kinnoull.
Raymond	F. T. Holt	Raymond.
Rexboro and District	A. G. Bennett	Rexboro.
Red Deer	E. W. Bjorkeland	Red Deer.
St. Albert		
Stavely	R. A. Hopkins	Stavely.
Strome-Klllam	Chas. F. Lyall	Strome.
Stony Plaln	T. P. Lindley	Stony Plaln
Swalwell	A. B. Claypool	Swalwell.
Strathmore	Frank T. McElhees	Strathmore.
Saskatoon Lake & Beaver Lodge.	J. L. Rlches	Beaver Lodge.
Spirit River	John P. Proudfoot	Spirit River.
Stettler	Harry F. Mullett	Stettler.
Sedgewick	M. Harper	Sedgewick.
Taber	T. A. Sundal	Taber.
Three Hills	John L. Huxley	Three Hills.
Tofield	R. N. Whillans	Tofield.
Trochu	D. H. Brinsley	Trochu.
Vegreville	Frank Wilson	Vegreville.
Vermilion	Job Mace	Vermillion.
Viklng & Blrch Lake	Jac. C. Barker	Viking.
Wetaskiwin	Chas. D. Enman	Wetaskiwin.
Wabamun	E. B. Shields	Wabamun.
Warner	. D. I. Gue	Warner.
Walnwright	S. R. Bowerman	Wainwright.
Winnifred	H. Flett	Winnifred.

EXHIBITION ASSOCIATIONS.

Inter-Western Pacific Exhibition Co. (Alberta Provincial.) Edmonton Industrial Exhibition Association.

FINANCIAL STATEMENT OF AGRICULTURAL SOCIETIES

!	SOCIETA	Government Grant, Paid 1912	Total Receipts	Total Expenditure	Balance on Hand	Assets	Liabilities
~	Cardston	1	\$ 22,221 06	\$ 22,221 06	-so		
64	2 Magrath	1,295 17	5,015 38	4,887 10	128	5,000 00	4,100 00
	3 Didsbury	68S 20	1,123 80		32 54		-
di.	Innisfail		7,814 17				3,135 29
	Lacombe	1,260.67	5,374.11			12,210.19	
. ~	Macleod		28,384 01				
٠.	Medicine Hat						
٠.	9 Olds						
=	Pincher Creek	731 00	1,930 25		9 51	6,270 50	2,805 45
Ξ	Ponoka		4,168 18	4,157 90	10.28		
===	Raymond		5,574.94		86.44		
13	Okotoks .	791 17	1,923 45	1,922 31	1.64		
	5 Vegreville			3,536 05			
=	Wetaskiwin .				:		2,003 66
ä	/Leduc				:		
37	Nanton		1,197 89		142 59		
ĭ	9 Vermilion						
ন	High River	1,015.00				1,325 00	1,351 62
C)	Priddis and Millarville						
ř	Viking and Birch Lake						040 20
ci.	Sist. Albert	353 17	1,218 25		•		429 84
Š	Manville		1,009 95		02 6	26 00	651 25
Ň	Stettler		2,060.39				1,355.81
ನ	Daysland		1,15469		25.48		1.690 00
è i	7 Claresholm		3,844.04		•		1,127 44
Ň	Milnerton		2,537.55		37.14	1,421.00	1.050.00
ಹ	Taber		2,999 50		5 65 2	1,453 41	00.096
က	Innistree				-	596 37	575.00
'n	Sedgewick	1,269.00	5,411.50	5,411.50		4,511.18	
io d	Alix				19 42	375 44	690.50
ò	4 Lloydminster	1,029 34	5,126 14			265 40	

FINANCIAL STATEMENT OF AGRICULTURAL SOCIETIES

SOCIETY	Government Grant, Paid 1912	Total Receipts	Total Expenditure	Balance on Hand	Assets	Liabilities
35 Camrose	\$1,045 53	1	\$1,038 09			\$1,000.00
36 Gleichen	172		3,775.13		7,384 44	3.649.55
37 Three Hills			1,299 35		6.45	420.00
38 Irma			1,015 55	41 85	555 35	775.00
39 Crossfield	515 00	1,952 92	1,875 53		3,308 39	2,188 75
41 Bowden					:	
43 Wabamun		2,019 69	2,015 66	± 03	82.209	739 75
44 Rexboro		1,048.51			146 21	
45 Holden		875 12	854 57		20 55	
46 Cochrane					1,194 02	
47 Stavelev					1,803 16	
49 Strome-Killam					422.95	
50 Trochu		3,367.95	3,362.70			
51 Fort Saskatchewan			1,220 15			
52 Granum		4,146 63	3,881 71	264.92	2,145 74	1,798.50
53 Langdon and Bow River		1,704 28	1,618 23			
54 Grande Prairie		1,910 40				
55 Castor		1,512 40			•	
56 Kitscoty		834.42	802 08		313 22	200 00
57 Stony Plain		2,322 03	2,284,81	37 32	1,537.22	
58 Lesser Slave Lake		773.05	612 99		206.21	
59 Swalwell		1,710 00			2,000.00	
60 Entwistle				50 89	146 14	
61 Carmangay		1,801 23			534 17	
62 Provost					158.55	
64 Mid-Pembina		1,185.63	1,173.48		380 95	199.77
65 Hardistv		840.08			20 90	
66 Paddle River		787.30			48 40	
68 Warner	•	1,106.01	1,066.10	39 91	374 37	
69 Elk Point		220.35	139.60		80 75	
70 Wainwright		1,953.55			1 26 1121	_00.000

FINANCIAL STATEMENT OF AGRICULTURAL SOCIETIES

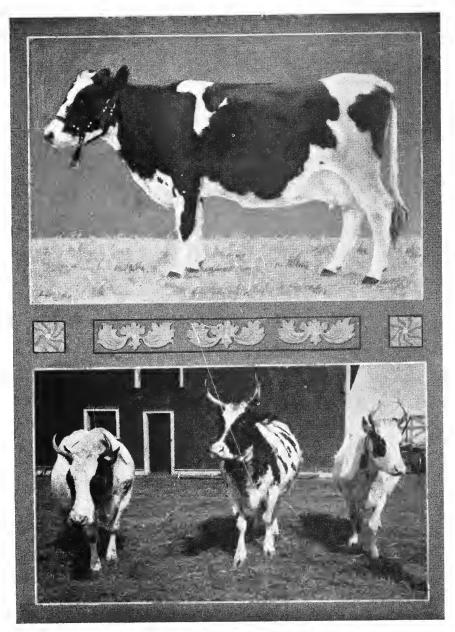
SOCIETY	Government Grant, Paid 1912	Total Receipts	Total Expenditure	Balance on Hand	Assets	Liabilities
71 North Alberta (Kinnoull) 72 Edgerton 73 Munson 74 Legal 75 Chauvin 76 Beaver Lodge 77 Onoway 77 Onoway 78 Nakamun 89 Lousana 81 Cornation 82 Peace River 85 Winnifred 86 Gadsby 87 Edson 95 Red Deer	\$ 48.€) 486.70 52.00	\$ 848.07 1,216.25 230.75 230.75 80.00 4,444.35 444.35 484.30 3,381.94 504.50 984.30 296.06 296.06 296.06	* 780 .72 1,216 .25 1,92 .20 74 .79 444 .35 461 .00 550 .71 224 .55 3,381 .94 2,381 .94 2,04 .75 2,94 .75 3,981 .48	\$ 67 35 38.55 5 21 21 00 21 00 24 43 64 43 64 26 30 58 00 58 00 52 65 28 05 28	\$ 67.35 146.25 38.55 38.55 42.11 10.00 21.00 79.95 79.00 1,062.50 3,146.80 1,853.00 1,853.00 53.65 479.58	\$ 245 85 84 35 84
	EXHIBITION	TION ASSOCIATIONS	ATIONS			
99 Calgary. 100 Edmonton 6 Lethbridge	8,000.00 8,000.00 8,000.00	84,163 41 98,941 02 21,493 02	84,163 41 89,243 29 21,493 02	9,697 73	22,924.79 19.642.14	22,924.79 4,501.97 8,003.00

EXHIBITION STATEMENT

SOCIETY	Date of Exhibition	No. of Entries	Amount paid in Prizes at Exhibition	Amount paid in Prizes for Sports	Amount paid in Prizes Field Grain Competition
1 Cardston. 2 Magrath. 3 Dishum	Sept. 20-21 Sep . 17-18	861 804 723	\$ 1,322.50 1,594.50	\$ 57.00 174.15	
4 Innistration 5 Facombe	July 16-17 Sept. 18-19	798 718	1,696.25	51 75	65.00
7 Macleod 8 Medicine Hat	Aug. 1–2 Aug. 28–29	1246 1736	2,648.00 3,003.00	1,311.60 $2,024.07$	$145.00 \\ 150.00$
9)Ids. 10 Pincher Creek	Ot. 14-15 Oct. 3	$616 \\ 379$	646.50 441.00	15.00 37.85	
1. Ponoka	Oct. 3–4 Sent 12–13	1100	2,196.90	174.50 271.50	
14 Oxfords .	July 17-18	590	824.00	:	.00 001
10 vegrevine 17 vegrevine	Sept. 26-27	872 1303	1,838.00	198.40	100.00
18 Nanton	Sept. 30-Oct. 1	408	495.00	191.30	
19 Vermilion 20 High River	Oct. 11 Oct. 17–18	794 789	1,216.60 $1,128.75$	423.50	
21 Priddis and Millarville 22 Viking and Birch Lake	Oct. 4 Sept. 24	$\begin{array}{c} 460 \\ 931 \end{array}$	917.00 938.50	15.50	
23 St. Albert . 24 Manyille .	Sept. 20 Sept. 20	579 425	510.75 677.75		75.00
25 Stettler 26 Davsland	Sept. 26–27 Sept. 24	455 371	690.50 501.50	250 00 207 74	85.00
27 Claresholm 28 Milnerton	Aug. 8-9 Sept. 20	714 576	956.50 1,036.00	776 50 28.00	100.00
30 Taber .	Sept. 27 Sept. 16–17	644 525	1,246.00	139.50	170.00
2) Sedgewick	Oct. 9	665 210	1,524.00	58.00	150.00
35 Camrose 35 Camrose	Sept. 25 Sept. 26 Oct. 12	1381 187	2,637.70 1,433.75	75.00	100.00
36 Gleichen . 37 Three Hills	Aug. 30–31 Sept. 17–18 Sept. 19	412 482 506	589 50 627.25 427 50	1,146.00	100 00

EXHIBITION STATEMENT

SOCIETY	Date of Exhibition	No. of Entries	Amount paid in Prizes at Exhibition	Amount paid in Prizes for Sports	Amount paid in Prizes Field Grain Competition
39 Crossfield.	June 21	403	893 75		
41 Bowden	Oct. 2	185	673.50	•	77.30
45 Wabamnn	Sept. 10	590	590,25	120 50	96.35 5.35
THE REXDORD	Sept. 18	303	638, 50	42.50	8
46 Cartage and District	Sept. 26	287	481.50	3 S	
40 Coentane and District	Sept. 10	888	897, 40	114.00	
4/ Otavely	Aug. 13	392	843.75		
49 Strome-Killam	Sept. 6	287	578.55	:	65 00
an Irochn	Oct. 7-8	317	333,90	:	150.00
oll Fort Saskatchewan	Oct. 8	501	674 20	00 006	70.00
52 Grannm	Ang. 6-7	746	1 601 00	367 50	
53 Langdon and Bow River	Aug. 15-16	320	63.155,1	00.100	
24 Grande Prairie	Sept. 26-27	421	758 00	110 50	
ob Castor	Sept. 24–25	598	928 75	00 206	
of Kitscoty	Sept. 24	298	389 00	00.161	
Sort and Oliver Flain	Sept. 21	096	1,161.00	76.50	150.00
Sold Lesser Diave Lake		:	419.70		
SOLD TOTAL	Oct. 1	528	565.50		
AL Commonder	Sept. 12	272	344.50	113 00	
GOD DESTRUCTION OF THE PROPERTY OF THE PROPERT	Sept. 24-25	09+	623 00	81 00	150.00
64 Mid Dombing	Oet.	200	616.70	96.50	150.00
GENTLE-FEIDURG	Sept. 6	230	276 00	00	
Gentardisty	Sept. 26-27	181	227.00	51.30	
colradale Kiver	Oct. 2	:	392,25	20.00	
80 Warner .	Sept. 10-11	255	623,25	135 00	
70 W. Foint	Sept. 25	Z	78.75	15.00	
71 Nowth Alborta (Firewall)	Sept. 25	267	636.25	45 00	
TANDER MINISTER (MINISTER)	7ept. 14	757	448 25		100 001



No. 6.—1. Grade Holstein, Vermilion Demonstration Farm 2. Registered Ayrshires, Demonstration Farm, Claresholm

		14

EXHIBITION STATEMENT

SOCIETY	Date of Exhibition	Number of Entries	Amount Paid in Prizes at Exhibition	Amount Paid in Prizes for Sports	Amount Paid in Prizes Field Grain Competition
72 Edgerton 73 Munson	Sept. 13	885	639.25	3 00	152 00
74 Legal 75 Chauvin 776 Beaver Lodge 77 Onoway 78 Nakamun	Oct. 4 Sept. 11-12 Sept. 5 Sept. 20		260.00 353.50 372.25 256.40	41 50 12 50	
79 Bassano 80 Lousana	Oct 4 Sept. 26-27	262 215 111	180 50	88.00	
85 Winnifred . 86 Gadsby 87 Edson . 95 Red Decr .	Oct. 15-66 Oct. 1 Aug. 21-22-23	216 120 731	331.10 182.50 1,495.75		200,000
99 Calgary Industrial 100 Edmonton 6 Lethbridge	EXHIBITION June 29—July 5 Aug. 12—17 Aug. 22—25	Associations 4583 5367 2223	17,248.00 15,048.00 7,381.70	18,490 00 14,605.00 2.041 50	. 265.00

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	Grain Seed Fair	in Prizes Stallion Show	Amount paid in Prizes Poultry Show	Amount paid in Prizes Good Farms Competition
1 Cardston 2 Magrath	\$ 58.00	· ·	\$ 272.00	•
o Dasbury Hinistal	85.00			
7 Macleon S.W. edicine Hat	64.00 144.00	320.00	499.50	
9 Olds 10 Pincher Greek	54.00	435.00	118 00	
11 Ponoka	} : : : :			: :
14 Okotoka	51.00	206.00		
15) Vegreville 16) Wetaskiwin	88.00	00.89		•
17 Leduc	112 00		•	.00.001
18 Nanton 19 Vermilion	33.00		:	
20 High River	04.00			
221 Friadis and Millarville 22 Viking and Birch Lake	55 00 80 00	. 6		
23 St. Albert	00.00	30.00		
25/Stettler				
26 Daysland	78.00	: .		
28/Wilnerton		:	:	
30 Taber	98.00 62.00	: :	194.00	
31 Innistree 32 Sedgewick	58.00 110.00	:		
33 Alix	00.011			:
34 Lloydminster	92.00	: :		
36 Gleichen	:	:	:	:
37 Three Hills		:		
38 Irms	38.00		: :	

EXHIBITION STATEMENT

	BOCIETY		Amount paid in Prizes Seed Grain Fair	Amount paid in Prizes Stallion Show	Amount paid in Prizes Poultry Show	Amount paid in Prizes Good Farms Competition
2444	39 Crossfield 41 Bowden 43 Wabamun 44 Rewhoro		59.00			
, य क क के छू।	45 Holden 46 Cochrane and District 47 Stavely 49 Strome-Killam 50 Trochu		71.00 64.00 89.00	00.66		:::.
ည် ညီလုံ လ	51 Fort Saskatchewan 52 Granum 53 Langdon and Bow River 54 Grande Prairie		110.00	115 20	981.25	
။ ညီး ညီ ညီ ည	55 Castor 56 Kitscoty 57 Stony Plain 58 Leser Slave Lake		47.00	:	-	. · ·
ကြောလာတ်က	99)Swaiwell 60(Entwistle 62)Provost 64.Mid-Dost	:	49.00			
တြောက်တ	65 Hardisty 66 Paddle River 68 Warner					
1-1-1-1	69 Eik Foint 70 Wainwright 72 Edgerton 73 Edgerton				:	
1-1-	74 Legal 75 Chauvin					
1444	76 Beaver Lodge 77 Onoway 78 Nakamun		. :	· · · · · · · · · · · · · · · · · · ·		
>	Bassano				:	

STATEMENT
EXHIBITION

Amount Paid in Prizes Good Farms Competition			
Amount Paid in Prizes Poultry Show			
Amount Paid in Prizes for Stallion Show		NS	
Amount Paid Amount Paid in Prizes for in Prizes for Seed Grain Fair Stallion Show		EXHIBITION ASSOCIATIONS	
·			
SOCIETY	ion iver ed ed		con doe
	80 Lousana 81 Coronation 82 Peace River 85 Winnifred 86 Gadsby 87 Edson 95 Red Deer		99 Calgary. 100 Edmonton 6 Lethbridge

POULTRY SHOWS.

Poultry shows have been held by the following societies and associations:

Granum Agricultural Society.
Pincher Creek Agricultural Society.
Macleod Agricultural Society.
Taber Agricultural Society.
Magrath Agricultural Society.
Medicine Hat Poultry and Pet Stock Association.
Lethbridge Poultry and Pet Stock Association.
Calgary Poultry and Pet Stock Association.

STALLION SHOWS.

Macleod, Trochu, Fort Saskatchewan, Vegreville, Pincher Creek, Viking, Edmonton, Calgary, Medicine Hat.

Respectfully submitted,

C. E. Lewis,

Superintendent of Fairs and Institutes.

8.—REPORT OF LIVE STOCK COMMISSIONER.

SIR,-I beg to submit herewith a report of the work carried on in the interests of the live stock industry during the year by the office of the Live Stock Commissioner.

LIVE STOCK CONVENTIONS.

On February 12th and 13th a convention was held in Ottawa for the purpose of discussing the live stock situation in Canada. The following representatives of the live stock interests of Alberta were present:

Mr. Geo. Lane, President Alberta Horse Breeders' Association. Mr. Jno. A. Turner, President Alberta Clydesdale Association.

Mr. W. Thorne, President Alberta Percheron Association.

Mr. Bryce Wright, President Alberta Sheep Breeders' Association.

Mr. Lew Hutchinson, President Alberta Swine Breeders' Association.

Mr. Rice Shepherd, Vice Pres. Alberta Swine Breeders' Association. Mr. E. L. Richardson, Secretary Alberta Live Stock Associations.

Mr. W. J. Stark, Secretary Alberta Provincial Live Stock Ass'n.

Mr. H. C. McMullen, General Live Stock Agent, C. P. R.

Mr. E. G. Palmer, Expert in Transporting Chilled and Frozen Meats.

W. F. Stevens, Live Stock Commissioner.

The following addresses were delivered by the Alberta representatives on that occasion:

"Western Beef Cattle," by Geo. Lane, Esq., Calgary.

"The Chilled Meat Trade," by Mr. E. G. Palmer, Edmonton.
"Present Conditions of the Live Stock Industry in Alberta," by Mr.

W. F. Stevens, Edmonton.

During the latter part of March and the first half of April the province was favoured with a series of lectures by Messrs. W. T. Ritch and C. M. McRae, both of Ottawa, on the subject of "Wool and Mutton Production." Meetings were held at the following places: Irvine, Lethbridge, Sedgewick, Wabamun, Nakamun, Dunstable, Belvedere and Vermilion. The attendance at all of these meetings was invariably good and the interest taken, keen. Mr. Ritch confined his remarks entirely to the proper preparation of wool for market. Mr. McRae spoke on the general care, management and breeding of sheep.

CATTLE MARKETS.

On April 16th the writer received a communication from Mr. E. J. Fream, secretary of the U. F. A., to the effect that there was in the Medicine Valley of Alberta about 250 head of grain fed cattle for which the owners were unable to secure a buyer, although the buyers who had operated throughout this district had frequently been communicated with. The writer visited the district named and assured himself that the cattle were of good type and well fed. The farmers admitted that they had been offered a few weeks previous, in some instances 61/4c per lb., in others 6½c per lb., and one party who had an exceptionally fine lot admitted that he had been offered 63/4c per lb. for them. They all explained, however, that the reason they had not accepted the offer made them was that they had read a widely published interview in which a prominent packer had predicted that prices would go to 7c or over before grass cattle would be available. The writer informed them that according to Winnipeg, Toronto and Smithfield quotations, prime export steers

were not worth more at that time than 6½c per lb., and plainer sorts from 6c to 6½c per lb., and he advised them to sell when offered that sum, unless advised of an upward movement in eastern quotations, or were prepared to hold their animals for from six weeks to two months. He also informed the farmers that if they would get together and contribute their best steers toward making a trial shipment to Toronto or the Old Country, he would accompany the shipment if they desired it.

He went to the coast and interviewed the leading buyers there and found that they were expecting lower prices for beef cattle and were buying only enough to carry them along from day to day. He decided that unless a local shortage could be brought about by exporting such as were fit for export, Alberta feeders would receive little for their labour in feeding cattle during the winter of 1912. He communicated with Winnipeg commission houses and asked that weekly market quotations be sent to the parties whose names had been reported to him. He also cabled Smithfield, England, and requested to be advised by cable of all market changes. From the prices quoted, he informed the feeders of the probable value of prime cattle weighing 1300 lbs. or over at Alberta points, and he again suggested that each feeder contribute from 6 to 10 head of his best animals toward making a trial shipment to the English market.

Before any definite action had been taken, Messrs. Rice and Whaley, of Toronto and Winnipeg, sent a buyer to Alberta who bought and shipped out 900 head. Eastern markets took on a firmer tone about this time and buying in Alberta became active at about 6½c per lb. for prime steers and as high as 7c was paid for a few extra good lots.

LIVE STOCK SHIPPING REGULATIONS.

On June 25th, 1912, the writer attended a convention of live stock breeders of Manitoba, at Brandon, for the purpose of discussing the proposed live stock regulations which were submitted for approval to the Board of Railway Commissioners on Sept. 11th, 1911, and which are fully set forth in his report for that year, and two days later a convention at Calgary which had been called by Mr. E. J. Fream, secretary of the U. F. A., for the same purpose. At this convention there were present:

Mr. Jas. Walters, Clive, Alta.

Mr. John A. Turner, Calgary, Alta.

Mr. Bryce Wright, De Winton, Alta., representing the Alberta Live Stock Associations.

Mr. D. W. Warner, Edmonton, Alta. Mr. David Stewart, Edmonton, Alta.

Mr. Cresswell, Edmonton, Alta., representing the Alberta Provincial Live Stock Associations, Limited.

Mr. R. C. Harvey, Raymond, Alta.

Mr. C. S. Crest, Lethbridge, Alta., representing the Southern Alberta Wool Growers' Association.

Mr. Adzhead, representing the Central Alberta Stock Growers' Ass'n. Mr. E. J. Fream, Calgary, Alta., representing the United Farmers of Alberta.

On November 25th, 1912, the writer attended a meeting in Calgary to further discuss these regulations with Mr. Nixon, chief traffic officer of the Board of Railway Commissioners, and Mr. M. J. McCaul, inspector for the Board of Railway Commissioners. There were present at this meeting, besides the writer, Mr. E. J. Fream, Mr. D. W. Warner, Mr. E. L. Richardson and Mr. John Turner.

At this meeting these regulations were considered from a technical standpoint and a few changes were made in them in order to make them workable throughout the Dominion.

Following is a copy of such regulations as amended at this meeting:

PROPOSED REGULATIONS GOVERNING SHIPMENTS OF LIVESTOCK.

Interpretation.

In these regulations unless the context otherwise requires:

- "Agent" referring to a station agent shall mean any railway station (a) agent.
- "Applicant" referring to an applicant for cars shall mean any cor-(b) poration, co-partnership or person who owns livestock for shipment in car lots, or who is the agent of the owner of such live stock.

"Livestock" shall include horses, cattle, sheep, swine, mules, asses (c)

and goats.

(d) "Car of livestock" shall mean any railway car loaded with livestock.

(e) "Station" shall mean any railway station at which the railway company is represented by an agent.

- (f) "Sub-station" shall mean any point or place on a railway at which freight is received or shipped and at which the company is not represented by an agent.
- (g) "Feeding Point" shall mean any place or point at which there is maintained a stock yard or yards for the feeding, watering and resting of live stock while en route.
- (h) "Shipper" shall mean any applicant to whom one or more cars have been allotted.
- (i) "Attendant" shall mean the person named by the shipper in the way bill as being in charge of one or more cars of livestock.
- (j) "Company" shall mean any railway company doing business or operating a railway in Canada, over which the Parliament of Canada has legislative authority.
- (k) "Spotting Cars" shall mean the placing of same at a stock yard so that they may be loaded or unloaded conveniently, or where there is no stock yard, at a loading chute.
- (1) "Book Rest" shall mean the signifying by one or more members of a train crew that he or they are in need of rest.
 (m) "Way Freight" shall mean any train sent out by the company which
- may deliver or take out freight at any station or sub-station in carload lots or less than carload lots.
- (n) "Pick Up" shall mean any train sent out by the company which may deliver or take out freight at any station or sub-station in carload lots only.

(o) "Car Repairer" shall mean any employee of the company capable of making minor repairs to a stock car.

- 2. When an application for one or more cars is received by the agent of the company, the same shall be immediately entered in a book to be kept by that company for this purpose, and said book shall contain:
 - (a) The hour and date when said(b) The name of each applicant. The hour and date when said application was received.

The place where each car is to be loaded. (c)

The hour and date. (d)

- The number of each car allotted. (e)
- The hour and date when same was loaded.

The destination of each car. (g)

- 3. Cars shall be placed for loading at the stock yards or loading chute, as mentioned in said car order book.
- 4. Application may be made in person, by mail, telephone or telegraph to the agent in charge of the station or sub-station from which shipment is to be made, or to other officers authorized to receive such application.
- 5. When the company cannot supply or furnish stock cars for all applicants it may substitute box cars therefor, in proportion of three box cars for every two stock cars applied for.
 - (b) When box cars are supplied in lieu of stock cars, as provided in the preceding section, the minimum weight to be charged by the company shall be the weight the company would have been entitled to charge had stock cars been supplied or furnished.

- (c) Before supplying box cars in lieu of stock cars, all the stock cars available at the station, or sub-station, shall be supplied first in the order in which the applications were received by the agent. This rule may be varied if an applicant signifies a willingness to accept box cars in lieu of the stock car or cars to which he may be entitled.
- 6. The company shall provide at each stock yard or loading chute a sufficient supply of sand or cinders, conveniently located to the loading chute or platform.
- 7. When a shipment is to be made during the winter months the company shall, as far as practicable, supply box cars when application is made therefor.
- 8. When requested to do so by the shipper, the railway company shall supply double deck cars with a minimum capacity of 27,000 pounds for the shipment of sheep and swine; but when not supplied the minimum for each carload shall be 15,000 pounds.
- 9. Whenever a shipper has been supplied with one or more cars that are in need of repairs, he shall notify the agent of the same, and if the agent fails to cause the necessary repairs to be made within a reasonable time, the shipper may make such repairs, or may cause same to be made, and upon presentation of a voucher showing the cost of the said repairs, shall be given a credit on his way bill for the amount of said voucher.
- 10. Every agent on reasonable demand shall advise the shipper whether or not the train on which the latter proposes to ship live stock is running on time and of the hour at which the said train will probably arrive.
- 11. Shipments of live stock when hauled by a way freight or pick up may be loaded or unloaded while en route in the direct line of transit between the original shipping point and destination, at an extra charge of three dollars (\$3.00) per car for the first stop-off, and two dollars (\$2.00) per car for each additional stop-off thereafter.
- 12. Stock yards containing feeding racks and watering troughs shall be provided at junctions, divisional and other points where delays occur in forwarding trains, which yards shall have a capacity sufficient for feeding and watering such consignments of live stock as ordinarily pass through such points.
- 13. Whenever it is known that there will be a delay of four or more hours in forwarding one or more care of live stock from a junctional, divisional or feeding point, the company shall at once so advise the attendants who have loaded or have been ordered to load the stock in their charge of the probable length of such delay, and at points where there is an engine maintained or available for switching purposes, the company shall cause said cars to be spotted for unloading if requested to do so by the attendant.
- 14. Cars containing live stock shall be placed or spotted by the company for unloading with as little delay as possible and in no case should such delay exceed two hours after arriving at point of destination or feeding point.
- 15. Trains containing shipments of live stock shall have preferred movement over all dead freight trains.
- 16. It shall be the duty of the railway company to provide reasonable accommodation for the attendants of live stock on the same train in which said live stock is hauled, and such accommodation shall be open and available to all attendants on live stock in any train as soon as train is made up.
- 17. Any person, co-partnership, company or corporation who shall vlolate any of the provisions of these regulations, shall be tried and punished by the Board of Railway Commissioners for Canada.
- 18. The Imposition of any such penalty shall not lessen or effect any other liability which any company, co-partnership, person or corporation may have incurred.
- 19. Complaints for violation of these regulations shall be submitted to the railway company and the Board of Railway Commissioners, within ninety days from the time the violation is made.

RECORD YEAR FOR ALBERTA LIVE STOCK.

The province achieved no little distinction during 1912 in live stock matters. Mr. C. Julian Sharman of Red Deer, completed a three year test of his now celebrated Jersey cow, Rosalind of Old Basing. One result of which was the establishment of a new three year butter record for the British Empire. The official figures are as follows:

Highest milk yield in one day	52	Юs.
Highest milk yield in one month	1.47114	tbs.
Highest milk yield in one year	15,700	Ibs.
Average test 5.16 per cent.		
Butter in one year	1031.89	lbs.
Butter in three years	2504.39	Юя.
Milk in three years	37.8471/	ibs.
Actual returns for cream and skim milk in three years	\$1007.50	
Value of three heifer calves not known, but have refused	\$2000.00	

Mr. Geo. Lane of Calgary shipped a train load of grass fat cattle from his ranch at Brooks, Alberta, to Chicago, and for 300 selected cattle he received \$10.25 per cwt. or 50c per cwt. more than was ever before paid for range cattle on the Chicago market.

In December Mr. Simon Downie of Carstairs, Alberta, exhibited at the Toronto Fat Stock Show a carload of pure bred, grain fed, Hereford These cattle had been shipped in an open stock car from Carstairs to Toronto; they were ten days on the road and were exhibited two days after their arrival. In spite of these handicaps they were accorded first prize over their eastern stall fed competitors.

RECOMMENDATIONS BEFORE RANCH COMMISSION.

On November 13th the writer appeared before the Ranch Commission sitting at Lethbridge and again on the 14th at Pincher Creek and submitted to that body for consideration recommendations regarding the proper disposition to be made of our non-agricultural lands.

RECOMMENDATIONS.

Those lands which now are or which may hereafter be declared to be nonagricultural lands should be so administered as to induce the occupants thereof to adopt mixed farming methods as rapidly as the progress of scientific agriculture make the adoption of such methods possible or advisable and they should be classified on the following basis:

 Lands on which live stock can be kept throughout the year.
 Lands on which live stock can be kept only during the summer season, whether because of climatic conditions or departmental regulations.

- 3. Grant closed leases for a period of fifteen years, on lands upon which live stock can be kept throughout the year, in blocks of not to exceed ten sections, and place the growers of all classes of live stock on an equal footing in the matter of acquiring such leases, giving the leasee the privilege of purchasing not to exceed two sections of his leasehold at the expiration of the term of his lease.
- 4. Classify lands, upon which live stock can not be kept throughout the year, into horse, cattle and sheep lands according to the kind of live stock they are best adapted to grazing and admit on such lands, for grazing purposes, under suitable regulations, and upon payment of a reasonable fee, live stock of the kind corresponding to such classification, giving preference to small holders whose winter headquarters lie nearest the lands to be grazed.

EXPLANATIONS.

By non-agricultural lands, is meant lands that are now or may hereafter be declared to be not available for homesteading or purchase for any of the following reasons:

- 1. Because the nature of the soil is such as to render them unsuitable for agriculture under present conditions, or conditions that are likely to prevail in the near future.
- 2. Because climatic conditions are such as to make successful crop growing uncertain.
- 3. Because such lands have been set aside for forest reservations or such other public uses as would not render them unsuitable for grazing pur-

The reasons for the above conditions in the terms of the leasehold suggested are:

- 1. That ordinarily six sections are sufficient to graze a herd of live stock sufficiently large to support one family, and six sections should therefore be made the standard size of a leasehold, but there might be topographical or other conditions that would require a larger area in order to utilize the land to the best advantage. For this reason it is suggested that a larger area may under certain conditions be included in the lease, but in no case exceeding ten sections.
- 2. With leases of this size a sufficient number of families can be gathered into one township to support a public school.
- 3. Special provision should be made in each lease to the effect that where there are any children of school age desiring school privileges a tax should be levied for that purpose, leaving the ranchers free to decide whether a school house should be built or the pupils maintained at a public or private school elsewhere.
- 4. Special care should be taken to formulate a system that will not compel stockmen with families to leave the land and move into some town or village in order to educate their children.
- 5. Since extensive improvements are necessary to every ranch, such as buildings, corrals and watering places, and as a rancher is not likely to develop his leasehold unless he is assured that he will be permitted to enjoy the fruits of his labour for a sufficiently long time to repay him for the labour and moneys expended, inducements should be held out to him to surround himself with such conveniences as will enable him to conduct his business economically and with satisfaction to himself. It is therefore suggested that he be given a closed lease for not less than fifteen years, and that he should have the right to purchase not to exceed two sections of his lease hold at a price named in the lease.
- 6. In cases where a leasehold consists of less than six sections the lessee should not be permitted to purchase more than one-third of the lands under lease.

The writer again appeared before the Ranch Commission at Pincher Creek on Nov. 14th, 1912, and submitted the following:

Since the meeting at Lethbridge yesterday, I find that I did not make myself clear to the stockmen as to the difference between a lease on the prairie and a grazing permit in the forest reserve. In their remarks after the commission had adjourned, I found them incessantly getting the two systems confused, and speaking of getting leases inside of the forest reserves. I wish to make it clear that there was no intention of asking for leases inside the forest reserve, but that grazing permits alone be granted therein, and that these be in force only during the summer months. I would suggest that the method of administering the forest reserves be somewhat as follows:

A. Classify the lands included in the forest reserves into (a) horse, (b) cattle, and (c) sheep areas, according to the kind of live stock they are best adapted to grazing. In determining these different areas, I think it would be best to follow natural boundaries as nearly as possible. In most cases these natural boundaries will be mountain ranges or streams not easily forded.

The basis of this classification should be somewhat as follows:

- (a) Districts having a large percentage of infertile soil, whether sandy or hard clay and which are watered by running streams and are comparatively free from sloughs should be described as horse areas. Although all kinds of live stock do well on them, this is the only kind of land on which horses can be kept with profit.
- (b) Districts in which the vegetation is somewhat rank and which contain a considerable number of sloughs, but are still outside of the area in which flies and mosquitoes prevent the animals from thriving, should be described as cattle areas.
- (c) Districts in which flies and mosquitoes torment both horses and cattle to such an extent that they do not thrive, also lands in which the vegetation consists chiefly of weeds and wild flowers, should be classed as sheep areas.
- B. Admit on such lands for grazing purposes only, during the months of June, July, August, September and October, under suitable regulations, live stock of the kinds corresponding to such classification.

C. Adopt a system of regulations somewhat as follows:(a) Some time in January or February, let the Forestry Department announce through the proper channels that a specified number and kind of live stock will be admitted upon each reservation and request all persons desiring the privilege of grazing live stock of the kind specified, upon such reservation, to make application therefor, stating the number and kind of live stock he desires to have grazed, his post office address, and the section. township and range in which the winter headquarters of the animals to be grazed is situate.

(b) If the number of applications exceeds the estimated carrying capacity of a given area and thus make it necessary to refuse some applicants entirely, or all applicants to a limited extent, my plan would be first to refuse grazing privileges to applicants who have large bunches and whose winter headquarters are at a considerable distance from the area to be grazed and to reduce as heavily as need be large bunches close to the reserve, in short, as stated in the outline, I would give preference to small holders whose winter headquarters lie nearest the lands to be grazed.

(c) If there are not sufficient applications to fill the estimated carrying capacity of a given area with the kind of live stock to which it is declared to be best adapted, live stock of another class may be admitted up to the carry-

ing capacity of that district.

(d) In case, in the course of a year or two, it is found that the land is being over grazed the number of animals admitted in a given district should be reduced.

(e) In case it is found that unused vegetation is accumulating on the

ground, a larger number of animals should be admitted.

(f) Forest rangers should be given the power to deal summarily with all cases where the herdsmen of one class of live stock are found or are reported to be grazing their animals outside of the district allotted to them; providing, of course, for an appeal to higher authority

(g) As it will be necessary in many cases to trail sheep through districts allotted to cattle, when passing to and from their summer range, it will be necessary to define the route along which sheep must be kept and either to require a certain number of miles to be travelled each day or to have the journey through the forest reserve made under the supervision of a forest ranger who should be authorized to deal summarily with all parties violating the regulations, even to the point of depriving them of the privilege of grazing or herding stock in the forest reserve.

D. A charge should be made for grazing privileges at a fixed price per head of stock admitted. This price should not be more than is necessary to pay the cost of administration and policing. The object should be to establish a flourishing live stock industry and not to treat the forest reserves as if they

were expected to pay dividends.

LIVE STOCK MARKETS.

Aside from the depression referred to in the cattle market during April and May and a similar depression in the sheep market at about the same time which necessitated the shipping to Toronto of six double deck loads of grain fed sheep and lambs by Mr. H. A. Suggitt and Mr. B. S. Pawson, both of Coaldale, Alberta, prices throughout the year have been very satisfactory.

The price of horses remains very much the same as a year ago. Draft teams find ready sale at from six hundred to seven hundred dollars per team. The only classes that appear to have declined in value are the light harness and high stepping classes. These seem to have suffered somewhat because of the advent of the motor ear. The nondescript and blemished classes are at present a shade lower than a year ago.

SHEEP.

The sheep industry made rapid strides during the year just past. The advantage of keeping this class of live stock on a grain farm for the purpose of destroying weeds, gleaning the stubble fields and utilizing unmarketable grain is becoming apparent to the farmers. According to a report received from the Department of Customs, 138,515 sheep were received at the port of entry at Coutts for feeding and breeding purposes. The estimated number of sheep in the province at the present time is 366,946.

SWINE.

Interest in the swine industry is very much on the increase throughout the province and the quality of the animals coming to market at the present time is far superior to those marketed in the past. The estimated number of hogs in the province at the present time is 536,915.

Respectfully submitted,

W. F. STEVENS,

Live Stock Commissioner.

9.—REPORT OF THE PROVINCIAL MEDICAL OFFICER OF HEALTH

To the Honourable,

The Minister of Agriculture.

SIR,—

I beg leave herewith to submit the annual report of the Public Health Branch of the Department of Agriculture, for the year ending Dec. 31, 1912.

CHANGE OF PERSONNEL.

L. E. W. Irving, D.S.O., M.D., Provincial Medical Officer of Health, for the past six years, resigned on May 1st, and on June 1st I was appointed to succeed him.

PROVINCIAL BOARD OF HEALTH.

The Provincial Board of Health met at different times during the year and transacted such business as was brought before it.

Plans and specifications for the installation or extension of water and sewerage systems were submitted to the board under Sec. 11 and 12 of The Public Health Act; and upon the approval of the board, certificates were issued to the following cities and towns:

WATERWORKS.—Edmonton, Calgary, Bassano, Coleman, Vegreville, Gleichen, Medicine Hat, Athabasca Landing and Red Deer.

SEWERAGE.—Calgary, Edmonton, Medicine Hat, Wetaskiwin, Vegre-

ville, Bassano, Macleod, Red Deer, Ponoka.

The regulations made by the Provincial Board of Health, under power conferred by The Public Health Act, have on the whole worked very satisfactorily. It has been found necessary during the year to make some slight alterations for their betterment.

In view of the erection of rural municipalities, and the power granted them under The Rural Municipalities Act, of caring for contagious, infectious and communicable diseases, under the supervision of the provincial medical officer of health, it will be necessary to amend The Public Health Act, providing for local boards of health in rural municipalities.

CONTAGIOUS, INFECTIOUS AND COMMUNICABLE DISEASES.

The following are the number of cases of contagious and infectious diseases as set opposite their names, which have been received at this office:

Typhoid											866
Smallpox											146
Chickenpox.											242
Diphtheria											519
Scarlet Fever.							 				807
Measles											2095
Mumps											48
Whooping Cough											91
Tuberculosis.					 						38
Other diseases.		 	 								97

The general increase in the number of contagious and infectious diseases reported is due, first, to the better system of reporting cases, under the new public health regulations; and second, to the great increase in population.

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OTHER DISEASES (Within Municipalities)

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Typhoid Fever.—There were 866 cases reported, as compared with 655 for the year 1911. In the cities of Edmonton and Calgary there were 511 cases. Not all of these originated in these cities, but owing to this fact that they are the centres of railway construction and have large hospital accommodation, a great many cases from the country districts are sent in.

In many eases, it was impossible to trace the source of infection. Repeated water examination made by the provincial laboratory went to show that the water supply was comparatively pure. Fly infection and personal contact are in my opinion responsible for a large number of cases.

The medical inspectors made frequent visits to the different towns and camps, urging the disinfection and screening of privies, screening of kitchens and a general cleaning up.

Smallpox.—146 cases as compared with 81 last year. Fortunately, the type was very mild.

Diphtheria.—The advisability of supplying physicians, especially in the outlying districts, with anti-toxin has been considered. Great difficulty has been encountered in persuading some families, especially foreigners, to have protective doses given the children exposed, on account of the cost. This disease is practically endemic in some foreign settlements.

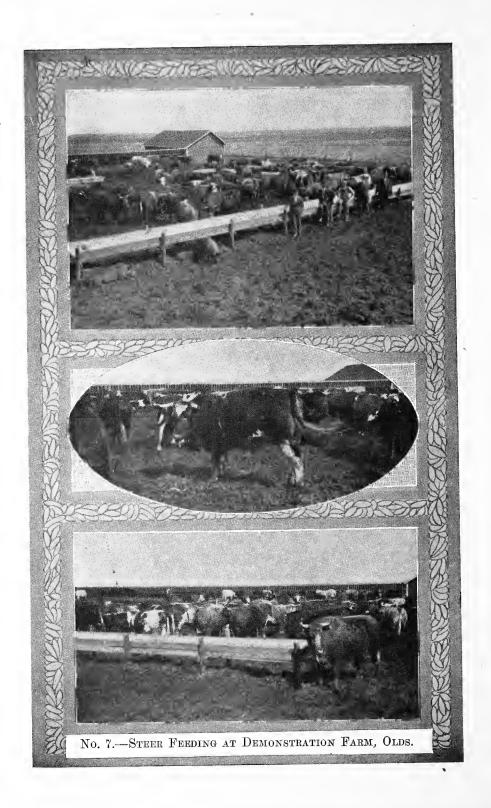
Measles.—There was a large increase in the number of eases of this disease, the majority coming from the city of Edmonton. Owing to the strict school regulations, under which a certificate from the medical officer of health is required for each child absent from school, few eases escape detection.

During the year, 37 permits for the disinterment and removal of corpses have been issued.

During the year, there was expended \$9,249.61 in the relief of eases of poverty and destitution. 192 applications were received and considered.

The following is a list of places:

Coronation (4). Hardisty (1). Lac Ste. Anne (1). Airdrle (1). Burdette (1). Junkens (2). Alsask, Sask., (2). Claresholm (2). St. Albert (1). Vulcan (2). Daysland (2). Sundial (1). Clyde (1). Acme (1). Cluny (1). Elk Point (4). Irvine (2). Morinville (1). Edmonton (71). Puffer (1). Blackie (1). Innisfree (1). Stavely (1). Edbury (1). Cereal (1). Banff (2). Gleichen (3). Tide Lake (2). Athabasca Landing (1). Innisfail (1). Staffordville (2). St. Paul des Metis (2). Brant (1). Plain Lake (1). Fort Saskatchewan (2). Entwistle (2). Calgary (3). Stettler (3). Trochu (1). Wildhorse (1). Leduc (4). Ponoka (3). Viking (1). Markerville (1). Canmore (1). Onion Lake (1). Rimby (1). Garden Plains (1). Lloydminster (1) Medicine Hat (2). Cummings (2). Hartshorn (1). Lethbridge (3). Allx (1). Suffield (1). Wetaskiwin (4). Bickerdike (1). Bonny Glen (3). Edson (7). Steveville (2). Mannville (2). Tofield (1). Carlstadt (1), Aldersyde (1). High River (1). Wolf Creek (1). Gadsby (1). Sedgewick (1). Passburly (1). Pakan (1). Evarts (1). Castor (1). Dinton (1). Red Lodge (1). Red Deer (1). Swallowhurst (1).



47 paupers were buried during the year, at the expense of the province. There are, at present, 9 destitutes maintained by the government in the Lacombe Home at Midnapore, and one in Youville Convent, St. Albert.

Incurables.—During the year, there was expended \$5,940.00 in the care and maintenance of incurables. There are at present:

- 8 cases in Medicine Hat Hospital.
- 4 cases in Providence General Hospital, Daysland.
- 2 cases in Lacombe Home, Midnapore, maintained at the expense of the government.

The report of Dr. Norman is as follows:

EDMONTON, ALTA., February 1, 1913.

Dr. W. C. Laidlaw,

Provincial Medical Officer of Health.

SIR,—I beg to submit my second annual report, for the year 1912.

Infectious diseases have had their usual annual crops, but in most instances active measures have controlled and confined the outbreaks to their localities in which they have originated.

Smallpox.—In the early months of the year, considerable smallpox developed, but rigid quarantine and vaccination confined it to distinct areas so that it did not spread much beyond these. The type of the disease was for the most part mild, and this accounts in many cases for its not being attended to in the early stages. Some cases however were quite severe, and several months past to date, the province has been practically free of this loathsome disease.

Scarlet Fever.—Of this disease, there have been quite a number of cases, scattered pretty universally over the province. Most cases have been mild, but an outbreak near Brant and one near Diamond City, proved to be of a particularly violent type and with quite a number of deaths.

Typhoid Fever.—In some cases, this disease became quite prevalent, notably in Edmonton, Calgary and along some of the lines of construction work, and in some cases at least, fly infection plus infected water was no doubt the cause. This is one of the diseases that in the future will undoubtedly be controlled as we get pure water and get rid of the flies. At present, the cases of typhoid are few.

Diphtheria.—This is still with us but thanks to anti-toxin, its terrors and fatality has decreased. The cases have not been as numerous as some years, but quite a number of fatal cases have been reported, especially among the Russians, who are very lax in obtaining medical attention until too late, and the disease spreads here, owing to their "fatalistic" beliefs, and so not observing strict quarantine. At the same time, it is difficult to convict them of breaking quarantine.

Measles.—A large and widespread epidemic of this disease occurred in the Leduc district, and some of the cities too, had quite a number of cases, but generally speaking in the country districts the disease was more sporadic.

German Measles, Whooping Cough and Chickenpox do not seem to have been as prevalent as usual.

Infantile Paralysis shows considerable decrease from last year.

Rabies developed north of Lloydminster, and one woman was bitten by a dog, and later she was sent to the Pasteur Institute for treatment.

The places visited by me, dates, and for what reason are herewith appended:

Smallpox.

Gleichen. Jan. 8 and 9 and April 20, 1912. Bassano. Jan. 12, 13, 25 and 26. High River. January 3. Magrath. Jan. 4, 5, 6, 21, 22, Feb. 7, 8 and June 13 and 14.
Elbow & Springbank districtJan. 14, 20, 27, Feb. 5, 6, 11, 17, 23, and March 6.
Lethbridge May 12.
Bickerdike May 28 and 29.
Hinton May 30.
S. E. of StrathconaJune 4, 10, 11, 18 and 24.
CastorJune 17.
Pellican PortageSeptember 23 to October 3.
Calling River August 28 to September 5.
Macleod district December 5 and 6.
Lacombe district

Scarlet Fever.

Banff	January 26.
Stony Plain district	June 30.
Claresholm	February 18 and 19.
High River district	.May 11.
Summerview	June 13.
Carlstadt district	July 2, 7, 8.
Lacombe district	
Brant	November 23.

$Typhoid\ Fever.$

Gleichen district	. September 11, November 7.
Bassano district	September 12, November 8.
Brooks district	. November 9.
Suffield	. September 13, 14.
N. Red Deer	
G. T. P and C. N. R., west	
G. T. P. (Brazlan branch)	

Measles.

Leduc district	. Mar. 1, 2, 18, 19, 20, 21, 25, 26,
	27, 28, 29, 30, Apr. 2, 3, 4, 6, 9, 10
	15, 16, May 6, 7, 8, 14, 15, 16, 17,
	22, 23, 24, 25 and June 7.
Mannvllle	. March 3, 4.
Nevis	. January 15.

Hydrophobia Suspect.

Lloydminster.	Mav	20.	21

Diph theria

N. E. of Edmonton	February 13.
S. E. of Edmonton	March 9.
Namao	March 11 and 13.
Highland Park	March 12.
Pakan	March 23 and August 14.
Coronation school district	March 23.
Chipman	August 16.

Hospitals Visited.

Castor Medicine Hat Holy Cross, Calgary General, Calgary Macleod Pincher Creek Isolation, Calgary Salvation Army, Calgary Lacombe Castor Lacombe Alexandra, Edmonton Provost Daysland Bawlf Camrose	April 22April 25April 25April 26April 27April 29April 29May 2June 16August 1August 5August 6August 7August 8.
Bawlf	. August 8.
Pakan. Vegreville, General. Roland M. Boswell, Vegreville. Edmonton Isolation Strathcona.	August 15. August 19. August 19. . August 26.

Nuisances were investigated at the following places: S. E. of Edmonton, Morinville, Rosslyn, Leduc, Ellerslie, Wetaskiwin, Lacombe, N. Red Deer, Meeyanoh (north of Edmonton).

In connection with sanitation, I made visits to the following places:

Coleman Log camps. January 15, 16.

Bellevue Dairy. February 20.

Frank. Lille mine February 20.

Bassano Oscar mine and dead animals.

Wainwright Cesspool February 27.

Bankhead. Camp March 7.

Strathmore Cesspool March 19.

Gadsby. Garbage May 2.

S. E. of Strathcona Slaughter house June 4.

St. Albert. River June 5.

Rocky Mountain House General June 21.

Coleman June 27, July 10, Nov. 19.

Blairmore June 28, July 10, Nov. 20.

Frank July 11, Nov. 21.

Hillcrest July 11, Nov. 22.

Carstairs Pond polition September 16.

Clover Bar Mine Pond polition October 11.

Aldersyde Boarding house November 17.

Banff Re Bow River December 2.

Canmore Pe Bow River December 3.

Namao Steel gang bunk

I also investigated several cases of destitution, quite a few being in Edmonton, and I also visited Canmore, Claresholm and Edson, in connection with destitution, and in most instances found the people needing aid, and deserving same.

Trusting that this report may be satisfactory, I am,

Your obedient servant,

T. L. NORMAN,
Provincial Medical Inspector of Health.

HOSPITALS.

The following hospitals are in receipt of the government grant of 25 cents per patient per day:

HOSPITAL.	LOCATION.	No. of Patients	No. of Days Tr'tm'nt
Macleod General	Macleod	282	3,851
Medicine Hat			0,002
Memorial	Pincher Creek	298	3,228
Memorial	Red Deer	373	6,877
Royal Alexandral	Edmonton	1,254	22,506
Edmonton General	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,468	25,986
Misericordia	,,	1,458	30.926
Isolation	,,	448	7,444
Strathcona General	,,	451	4,564
Beulah Mission	,,	40	873
Galt General	Calgary	1,104	23.153
Holy Cross	,,	3,155	45.577
Calgary General	,,	4,090	59,430
Salvation Army	"	105	9,844
Isolation	••	400	9,535
Tubercular	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-00	0,000
Lacombe General.	Lacombe	119	2,099
Roland M. Boswell	Vegreville		2,000
Vegreville General	,,	341	5.783
George McDougall	Pakan	371	1,090
Scandinavian		182	2,644
Bawlf Public I	Ba/wlf	288	3,440
Providence General I	Davsland	230	3,606
Camrose Munlclpal	Camrose	138	1,931
St. Joseph's	Grouard	109	1.503
High River General I	High River.		,
St. Mary's	Frochu	85	1.196
Our Lady of the Rosary		147	2,405
York General	Provost	95	1.361
Sacred Heart.	Athabasca Landing	137	2,306
Lady Minto I	Islay	48	196
Lamont Public	Lamont	94	1,242

I have the honour to be, Sir,

Your obedient servant,

W. C. LAIDLAW, M. D., Provincial Medical Officer of Health.

10.—REPORT OF THE PROVINCIAL SANITARY ENGINEER

SIR,—I have the honour to submit the following report on the work

of the sanitary engineering branch for the year 1912.

During the year plans and specifications were submitted to and examined by the writer, and the provincial board of health advised to issue certificates to the following cities, towns, etc., in connection with their various works which are as follows:

WATERWORKS.

New Works.—Bassano, Coleman, Vegreville, Medicine Hat, Athabasca Landing.

Extensions.—Edmonton, Calgary (service mains), Calgary (gravity system), Gleichen, Red Deer.

Water Purification.—Edmonton, Calgary.

SEWERAGE.

New Works.—Calgary (storm water), Bassano, Vegreville.

Extensions.—Calgary, Edmonton, Gleichen, Red Deer, Medicine
Hat, Wetaskiwin, Lethbridge.

SEWAGE DISPOSAL.

New Works.—Bassano, Vegreville, Macleod.

The reports of the various engineers representing the cities and towns of the province, showing fully the progress now being made in the installation of waterworks, sewerage works, etc., throughout the province, have been omitted this year.

*Consultations with many of the various engineers and other officials in charge of the foregoing works in connection with their installation, etc., were held and also with regard to projected works for which certificates have not yet been issued.

Matters in connection with the sanitary engineering requirements of the various government institutions throughout the province have had the attention they required.

Respectfully submitted,

R. B. OWENS,

Provincial Sanitary Engineer.

11.—REPORT OF THE DIRECTOR OF THE PROVINCIAL LABORATORY

SIR,—I have the honour to submit the following report of the work of the provincial laboratory for the year 1912.

The provincial laboratory carries out most of the technical work for the government in several lines, viz., public health, medico-legal, diseases of animals, liquor analysis and miscellaneous examinations.

I.—PUBLIC HEALTH.

Public health investigations relate to the diagnosis of some communicable diseases, the examination of water supplies and analysis of foods including milk.

During 1912 examinations were made for the diagnosis of diphtheria, typhoid fever and pulmonary tuberculosis as shown in the following table:

SPECIMENS EXAMINED FOR DIAGNOSIS OF INFECTIOUS AND CONTAGIOUS DISEASES.

DISEASE S	No. of Speci- mens	RESULT		Specimens sent from No. of		NUMBER RECRIVED BACH MONTH		
		Neg.	Pos.	Phy'ns	P.O.	Typhoid Fever	Diph- theria	Sputum
Typhoid Fever	141	123	18	93	68	Jan 12 Feb 8	15	20 22
Diphtheria	646	491	145	236	102	Mar8 April8 May11 June9 July6 ▲ug16 Sept28	17 36 25 33 42	24 30 29 29 28 13 13
Pulmonary Tuberculosis	278	216	62	220	158	Oct	78	25 22 23
Total	1065	830	225	549	328	141	646	278

Visits were made to the asylum at Ponoka for the insane and samples of sewage water taken for examination with reference to the operation of the beds for the treatment of the sewage from the asylum and the effects on the water of the Battle River.

I also attended the dairy school held at Red Deer and gave lectures and demonstrations in bacteriology.

The quality of water from various supplies was examined by analysis

of 164 samples. Some of these had regard to the fitness of the water for

use in public waterworks; others were for private use.

Analysis of 23 samples of milk were made. Such examinations of milk by means of samples have regard chiefly to the adulteration and butter-fat content of same. The more important matter of sanitary quality may be partly judged by the amount of dirt in the milk and by bacterial examination of fresh samples. Improvement in the sanitary quality of milk and maintenance of a high standard of such can be most surely secured by a good system of dairy-and-milk-inspection.

Other foods were examined as follows: Butter 1; ice cream 1; meat

3; raspberries 1; cheese 3; candy 2.

II .-- ANIMAL DISEASES.

Among diseases of animals rabies is one of those of chief importance in public health laboratory examinations, owing to the danger which it offers to the lives of human beings. Fortunately this province has had, as yet, remarkably few cases of rabies. An outbreak near Lloydminster caused the death of a number of cattle, dogs, sheep and pigs, and necessitated the Pasteur treatment being given to one person who was bitten. Examinations made in this laboratory left no doubt of the nature of the disease.

In the instance of a suspected case at Athabasca Landing the examination of the dog's brain proved negative.

III .- MEDICO-LEGAL INVESTIGATIONS.

Medico-legal investigations have been carried on in assisting the department of the Attorney General in the administration of the criminal law. Postmortem examinations, analysis of materials suspected to contain poison, of blood stains, etc., have been made when necessary or advisable and the results submitted in the law courts in those instances that came to trial. The certainty of detection and punishment of crime is one of the best preventives of criminal acts. The more thoroughly any crime is investigated the less likelihood there is of innocent persons being wrongfully accused or punished. As laboratory investigations are of prime value in detecting some forms of crime this part of the work of the provincial laboratory receives very careful attention and much time is devoted to it. In 1912 there were 46 such investigations.

IV .- LIQUOR EXAMINATIONS.

Analyses were made of 38 samples of liquors for the license branch

of the department of the Attorney General.

The amount of work and time taken in the technical work necessary for many of the investigations and examinations included in the foregoing is very considerable and can be fully appreciated only by those who are somewhat familiar by actual experience with the work itself.

I have the honour to be, Sir,

Your obedient servant,

D. G. REVELL,

Director.

12.—REPORT OF THE PUBLICITY BUREAU

SIR,-

I have the honour to submit herewith a report of the operations of this bureau for the year 1912.

During the past year we have undoubtedly received more settlers into our province than during any previous year. The practical efforts and expenditures of past years have greatly supplemented our work during the current year, and warrant the prediction that we shall continue to receive an increased immigration for years to come. Our past experience also reveals the certainty of quick and profitable results for all efforts and expenditures in advertising the unrivalled resources and opportunities of our great province.

In 1901 the population was 65,000; in 1906 it was 185,000. The census of 1911 gave a population of 385,000. To-day the population is very near the half million mark. If the same rate of increase continues for the next five years (and we believe it will) the population of the province will have reached nearly a million.

Reports received from the Dominion land agents in our province show that not less than 15,000 homestead entries were made during the current year, and as statistics show that each entry for the previous year averaged 3.10 persons per entry, we have on this basis increased our population upon the land alone by about 50,000 souls who will occupy not less than 2,500,000 acres of our soil. A conservative estimate of the increased population in our four cities during the current year has been placed at 25,000, although a much larger number is claimed by many.

The following towns report large increases during the past year, viz,—Bassano, Red Deer, Vermilion, Athabasca Landing and Edson; these with the 8000 men employed upon railway construction and the 8000 odd imported from Ontario and the eastern provinces for extra harvest help, places the actual immigration figures for the past year at about 90,000 souls, an increase of 24%.

The total Canadian immigration as reported by the Dominion government for the past year has been placed at 394,984, of which we received in round numbers 50,000 as follows:

British	13,000
American	30,000
Five other countries	7,000

or a little more than 12% of the total immigration to Canada, which gives us for the first time in excess of a proportionate number.

The high character of our immigration is being well maintained. The wealth per capita for the thirty thousand American settlers received this year has been placed at \$1,300.00, total value of effects and cash \$3,900,000.

The British settlers show that from year to year a larger percentage of farmers are coming to us than heretofore, with more means and experience for agricultural pursuits.

Four special train loads of settlers personally conducted by our commissioners at Montreal and Toronto were secured in April from

Ontario and the eastern provinces before closing our offices at Toronto and Montreal on June 1st.

WINNIPEG.

Our office at Winnipcg has been maintained with full force throughout the year. Its activities continue to supplement our population daily, and has become almost indispensable in securing harvesters and labourers, and performing other special duties which we are obliged to meet from time to time.

A special train of prominent Iowa farmers and business men were organized by our commissioner at Winnipeg, and personally conducted into our province during the month of August, and also a large number of smaller parties from time to time throughout the year. The unprecedented demand for harvest help found us well organized and able to reticket at Winnipeg over eight thousand farm labourers for Alberta during the past harvest season.

THE INTERNATIONAL DRY-FARMING CONGRESS.

Having last year secured the seventh annual meeting of the world's greatest agricultural congress to meet at Lethbridge October 19th to 26th, we provided a world-wide opportunity to advantageously advertise our province during the current year. It would be impossible to estimate the great value and benefits received from this congress by our province.

Never before has the International Dry-Farming Congress been so thoroughly representative as it was this year.

With government representatives not only from all parts of the American continents, but from European countries, and from far away China itself, it is safe to say there has never been anywhere or at any time in the history of the world so thoroughly representative a gathering of agriculturists.

The great variety of valuable premiums offered brought together the largest and best collection of agricultural exhibits ever seen on the continent, representing almost every civilized nation in the world. The offer of a \$2500.00 gas tractor engine by the "Rumley Co." for the best bushel of wheat was beyond all question the prize that most appealed to wheat growers throughout the world. It was a great prize and consequently created world-wide interest. Every province in western Canada was bent on eapturing this prize in order to establish its place in wheat raising.

The same purpose characterizes the great wheat growing states of the American Union.

The winning of this great prize together with capturing all the chief prizes in grain, some 85 in all with eleven sweepstake premiums, establishes our agricultural pre-eminence as nothing else could do.

A brief summary of the activities in connection with this bureau during the past year will include the publication and distribution of 45,000 books and booklets, and 10,000 maps descriptive of Alberta. Your chief commissioner has travelled 7,600 miles by rail, addressed 23 public meetings in the United States, prepared and published 65 newspaper and magazine articles, received 3,500 and wrote 4,100 letters.

We have met and entertained a large number of prominent and influential newspaper and magazine writers, and a great many homeseekers and business men.

I have the honour to remain,

Your obedient servant, CHAS. S. HOTCHKISS, Chief Publicity Commissioner.

PROVINCE	POPULATION 1911	IMMIGRATION 1912	PERCENTAGE
Maritime Provinces (3). Quebec Ontario Manitoba. Saskatchewan Alberta British Columbia	2,002,726 2,523,297 455,869 492,344 375,435	18,573 63,124 119,088 43,685 45,866 48,586 56,818	1.98 3.15 4.80 9.58 9.32 12.94 14.56
	7,077,649	395,739	5 5

Total immigration 51/2% of whole population.

13.—REPORT OF THE SUPERINTENDENT OF DEMONSTRATION FARMS

SIR,—I have the honour to submit herewith the annual report in connection with demonstration farms for the year 1912.

PREFACE.

The department has established six demonstration farms at different points in the province, these being located respectively at Medicine Hat, Claresholm, Olds, Sedgewick, Vermilion and Stony Plain. The object in establishing these farms is two-fold. One is to work out in practical demonstration, on a farm conducted as any first-class up-to-date farmer would conduct his own business, the results of the experiments made on the experimental farms operated by the Dominion government in the province. The other purpose is to make these farms the basis of schools of agriculture, three of which are now under erection at Claresholm, Olds and Vermilion. These schools will be carried on in connection with the farms, and in them will be given a full course in practical agriculture, as well as a complete course in domestic science. Graduation from these schools will entitle the student to a diploma in practical agriculture which will admit him to the Provincial Agricultural College, to be established at a later date, where he may spend two years to complete his course and take the degree of Bachclor of Scientific Agriculture. The demonstration farms in connection with these schools will be carried on in such a way that the student attending them will have the advantage of an experience in agriculture upon a commercial basis.

The farms will all be opcrated on the mixed farming principle—dairying, hog-raising, sheep-raising, poultry farming, as well as the raising of horses, and the feeding of beef cattle will be carried on at the farms. Accurate records will be kept so that not only the students but farmers throughout the province can get first-hand information as to actual results along different lines of agriculture in the province. These farms will naturally become live-stock centres, and the breeding of good live-stock will be carried on at each farm, so that young stock of different breeds and of pure breeding can be offered for sale to farmers at reasonable prices. The keeping of good live stock on these farms will also stimulate the live-stock industry in that locality, and in this way very materially assist the development of agriculture in the province.

The object of this whole system is primarily to bring agricultural education as near as possible to the men on the land. These schools of agriculture, located as they are in different parts of the province, offer an inducement at the very door of the farmer to give his boy some training in scientific agriculture. They supply the link between the man on the land and the larger central agricultural college in the province.

From these schools, short courses in agriculture will be carried on. All the extension work in agricultural education will centre around these schools. The institute meetings, the short course schools, the seed fairs, and the weed inspection can be effectively operated from these schools as

centres, and the teachers in charge can also do very effective work during the summer months as district representatives, giving assistance to the farmers throughout the districts.

ANNUAL REPORT.

Alberta is essentially an agricultural province. The basis of its wealth lies in its vast areas of agricultural lands. The problems which confront the people, in so far as the commercial and industrial development of the country are concerned, rest basically upon the development of these vast agricultural areas. That Alberta is a country of tremendous resources is a story which has been often told—but we cannot become too familiar with the facts, for the realization of the immensity of our problems cannot fail to help in their solution. Alberta has a total area of 162,755,200 acres. This is more than equal to the area of Austria-Hnngary. It is double the size of Great Britain and Ireland and more than 80,000 square miles larger than New England States. From northern to southern point of the province is a distance of about 800 miles, and from the east to the west it varies from 250 to 300 miles.

Throughout the vast area there is a wide diversity of soil and climate. The problems which agriculture presents in the south may not be presented to the farmer in the north, and even within a comparatively few miles the difference in conditions may be considerable.

The following figures, giving the annual average precipitation in different parts of the province over a period of seven years, give some idea of elimatic conditions existing in the province over the period named:

AVERAGE ANNUAL PRECIPITATION FOR SEVEN YEARS.

	Medicine Hat	Didsbury	Edmonton	Calgary
January	43	.54	. 96	.33
February		. 43	. 55	. 28
March		.79	. 86	.74
April	32	. 78	.63	.80
May	2.37	3.31	1.74	3.62
June	0 00	5.33	3.97	3.61
July		2.80	3.00	2.08
August		3.15	2.21	2.94
September		1.84	1.05	.90
October	4.0	.89	${\bf 1.02}$. 56
November	.2 6	.77	. 92	. 36
December	40	1.10	. 57	. 22
	9.82	21.73	17.48	16.44

These points have been selected for comparisons because they represent fairly closely conditions prevailing in the different sections of the province.

Add to the factor of the variable rainfall in different portions of the province the difference in the character of the soil, and some idea can be obtained of the factors necessitating a different treatment of the question of farm demonstration work in the province of Alberta from any other province in the Dominion. Manitoba might establish one farm at Winnipeg and find conditions similar to those prevailing in other parts of the province. Ontario might work out its problems at Guelph, but for Alberta it was deemed necessary to establish a number of farms in different sections of the province, the better to serve the needs of the community.

That the agricultural needs of the province are great—that there is abundant work to be done is shown by the rapid development of the agricultural interests of the province. In 1911 the total grain crop of Alberta consisted of:

GRAINS FOR THE YEAR 1911.

	Сгор атеа	Total yield	
	in acres.	in bushels.	per acre.
Spring Wheat	757,906	15,730,238	20.75
Winter Wheat	182,671	4,336,749	23.74
Oats	669,827	27,604,993	41.21
Barley	103,302	3,037,584	29.41
Flax	16,549	153,908	9.30
Rye	2,190	38,722	17.68
Speltz	203	5,337	26.29
Total	1,732,648	50,907,531	

And the live stock of the province was estimated at the end of 1912 as follows:

Live Stock for 1912.

Horses	557,571	
Swine		
Sheep	366,946	
Dairy Cows	164,989	Y
Other Cows	142,243	044 404
Beef Cattle	161,985	944,464
Other Cattle	475,247	
Total	2.405.896	

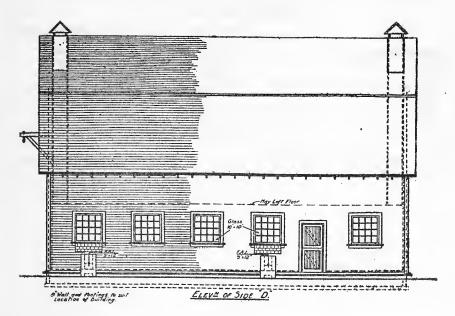
Roots Crop.

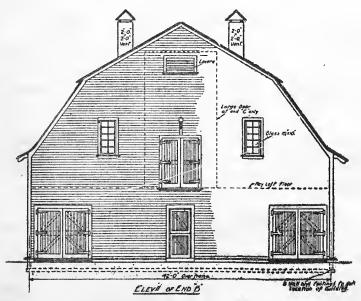
		Acreage	Bushels	Average
Potatoes	 	42,539	7,459,000	175.35
Turnips .	 	6,740	1,742,306	258.52
Mangolds	 	869	410,910	447.85

In the season of 1912 the production of live stock in Alberta showed great development. As a wealth-producing factor the live stock industry is increasing year by year.

Cattle Exports for the Year 1912.

Shipped to U. S. A	3,500 7,000 1,000 37,000 3,000
Total Local consumption Moved from summer to winter feeding	51,500 65,000
Total shipped by railway companies	141,500
VALUE OF SHIPMENT.	
British Columbia 37,000 head at \$70 Manitoba 7,000 head at \$70 Ontario 1,000 head at \$70	\$2,590,000.00 490,000.00 70,000.00
Europe	\$3,150,000.00 245,000.00 210,000.00
Total shipment out of province.	\$3.605.000.00





Side and End Elevation—Horse Barn

So much for a brief summary of what has been done and of the potentialities of developments. Taking careful consideration of the work in hand and of the ideal to be kept in view, the legislature in the session of 1910 made provision for the purchase and equipment of seven demonstration farms. The points kept in view were briefly as follows:

To secure farms which should be fairly typical of the district in which each farm was located.

To begin work, not upon an extravagant basis, but to so direct the operations as that similar work might be carried on by any farmer in the province who was provided with a reasonable amount of capital.

To work out in a practical way the problems of the farm pertaining to the growing and marketing of crops, the care and feeding of live stock, the feeding of dairy cattle, sheep, swinc and poultry.

To form around these farms the nucleus of a system of agricultural instruction which would be a benefit to the farmers of the entire community and to the province as a whole.

Six of these have already been purchased, equipped, and are in operation. They are located as follows:

Medicine Hat—640 acres three miles west of Medicine Hat; Claresholm, 320 acres adjacent to the town on the south; Olds, 320 acres just east of the town; Sedgewick, 640 acres east of the town; Stony Plain, 480 acres a short distance to the south; Vermilion, 320 acres adjacent to the town on the west.

In addition land has been purchased at Athabasca Landing—483 acres, one mile east of the town. It has not yet been equipped.

Competent managers have been secured for each farm, the object being to obtain in each case a thoroughly practical man who would not only be in a position to guide the operations of the farm, but to assist in various other ways in the educational work in contemplation. A definite building plan was outlined, and this has been practically all carried into effect.

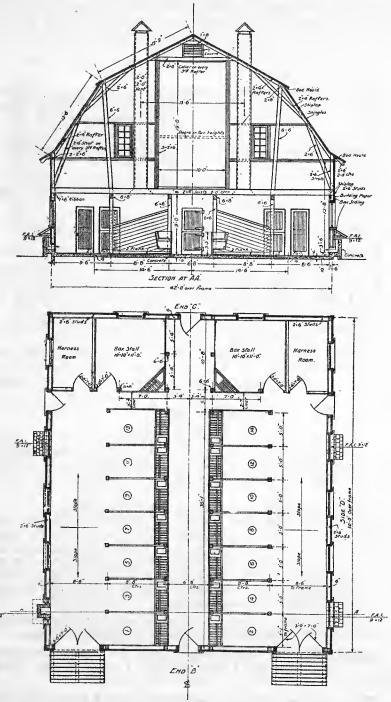
On each of the farms the following buildings were erected: Manager's house, \$4,000; men's lodging house, \$1,850; dairy barn, \$3,300; horse barn, \$2,300; hog pen, \$700; four hen coops, \$150 each; shed, \$500; root house, \$700; ice-house, \$300; milk house and pump-house, \$500; yards, \$250.

These buildings are not extravagant, but it was essential, in view of the live stock work which was being undertaken on these farms, that buildings of fairly substantial character should be erected at the start. On a farm used for demonstration purposes it was, of course, necessary to keep more varieties of cattle than would be considered wise on an ordinary farm. Provision had to be made for accommodation for stock similar to that at present on the farms. At the end of 1912 the live stock upon the different farms was as follows:

Claresholm: 16 Ayrshire cows, 8 calves and 1 bull; 14 Shorthorn cows and 1 bull; 10 heavy horses, 1 driving horse, 10 hogs, 82 steers.

Medicine Hat: 24 Jersey cows, 5 calves and 3 bulls; 10 heavy horses, 1 driving horse and 2 colts; 26 hogs; 1 goat; 30 hens (Buff Orpingtons).

Olds: 105 steers; 10 registered Holstein cows, 2 heifer calves and 1 bull; 18 grade Holstein cows; 13 horses; 2 colts; 36 hogs; 35 hens (Barred Rocks).



Cross Section and Plan—Horse Barn—showing Ventilating System

Vermilion: 14 registered Holstein cows, 1 bull and 2 heifers; 14 grade Holsteins; 102 sheep (grade Oxford); 6 sheep (registered Oxford); 29 hogs; 10 heavy horses, 2 driving horses and 1 yearling; 110 hens (Rhode Island Reds).

• Sedgewick: 106 feeding steers; 10 registered Shorthorn bulls, 24 cows, 5 heifers and 10 calves; 8 grade cows; 15 work horses, 1 driving horse, 2 foals.

Stony Plain: 46 Holstein cows and 1 bull; 12 working horses; 1 team driving horses; 14 hogs; 152 hens (Barred Rocks).

Full details of the plans of the different buildings will be found in the illustrations of this report. In the plans it had to be borne in mind that on most of the farms a considerable dairy herd would be maintained, in addition to the important work of feeding steers in the open. The contour of the ground and the direction from the town, as well as the arrangement for general convenience, had to be taken into account. As a general rule, we have found it better to place the dairy barn on the west side and the horse barn on the east, with a high board fence joining the two, or the horse barn may form an L with the cow barn, with a yard facing south and east. The object is to have the buildings afford some shelter to the yard in which the feeding of the steers is done.

As will be seen from the plan of the dairy barn, the cows face each other in two rows. A loft is provided of a size sufficient to hold feed for five or six weeks. The rough feed is dropped through a chute from the loft into the feed room at the end of the barn. The roots and chop are here mixed with the cut feed and let stand some time before feeding. Grain bins are located in the loft immediately above the feeding room, from which grain chutes are joined to the feed room floor. In the loft is also located a grinder and straw cutter, and the root pulper is located in a corner of the room below.

The watering system is not yet completed in all of the barns, but will be installed on the following plan. The well is located about 30 feet from the dairy barn. Over this is a small pump-house which holds the pump and a two-horse-power gasoline engine, also a small tank and stove. The water tank is situated in the loft of the pump-house, immediately above the stove. This prevents any possibility of freezing. From this a pipe is run to the dairy barn, and the water conveyed to the manger from which the cattle get their regular fccd. The manger is swept out after feeding, and the water turned in. When the cattle are through drinking, a plug is opened in the cnd of the manger, from which a drain runs to a hole in the ground a short distance from the end of the building. From this the water escapes by seepage. In some farms it will be impossible to do this as the nature of the soil is such that the water could not escape, and in these cases water cups will be installed.

Ventilation is a very important feature, especially in connection with the feeding of dairy cattle, for not only does poor ventilation lead to a lowering of the vitality of the animals, but there is also the necessity of keeping the stable odors from the milk. There is a cement box about three feet high on the outside of the building. The air comes through this at the floor of the building, and is conveyed up about three feet by a box on the inside of the wall. This prevents a direct draught on the animals. There are three of these intakes on each side of the wall. The outlets commence at the ceiling, and are about two feet square—two on each end. These outlets consist of two boxes one inside the other, and one about two inches larger than the other with paper between. This gives a dead-air space so that the warm air does not chill. It thus pre-

vents condensation and consequent drip from outlets. This shaft runs straight through the roof above the apex. Lids and shutters are placed on both intakes and outlets to secure proper control of the temperature.

Our experience has shown certain points in which improvements on the plans can be made, and we consider that the dairy barn erected at Stony Plain has some advantages over the others. Calves and bulls are kept in a barn away from the rest of the cattle. This minimizes the restlessness of both. Less room is wasted with passageways. The feed room is in a corner of the barn instead of being in the centre of the end, and is thus in closer proximity to the root cellar.

FEEDING DAIRY CATTLE.

The feeding of the dairy cattle is as yet in an evolutionary stage. Some of the farms were stocked rather too late in the summer to secure accurate records, and it is too early to get feeding data which could be regarded as of scientific value. The cows have been fed largely on green oat sheaves run through a cutting box and also wild hay once a day. The chopped feed consists of two-thirds oats and one-third barley; each cow gets from one pound to one and one-half pounds per day of oil cake. This meal is mixed with the cut feed.

The milk is sold to local dealers in Medicine Hat, Calgary and Edmonton.

The Vermilion farm is the only one on which to date the milking records are of any value. The weighing was begun on July 14th. The record is not as good as it otherwise would be, for animals which have been shipped in and placed in new surroundings are not in a condition to make a record which they otherwise might. The records are as follows:

DEMONSTRATION FARM, VERMILION, PERFORMANCE OF COWS, 1912.

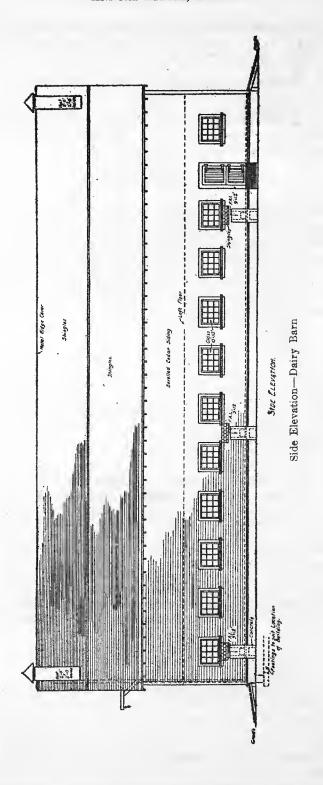
Weighing began July 14th; Weighing ended December 31st.

Arranged in order of merit.

	in order of more.		
		lbs.	milk.
1.	Pure-bred, Julia O' Bell		7,212
2.	Pure-bred Lily Whitzyde		5,462
3.	Pure-bred, May Dekol Queen		5,455
4.	Pure-bred, Georgie		5,289
5.	Grade No. 12, Irene		5,034
6.	Pure-bred, Barbara Jensen 3rd		4,600
7.	Grade No. 10, Favorite		4,564
8.	Pure-bred, Vrouka Queen		4,380
9.	Pure-bred, Blossom Hungerweld Teake		4,254
10.	Grade No. 11, Bessy		4,238
11.	Grade No. 15, Princess		4,216
12.	Pure-bred, Cora		4,180
13.	Grade No. 14, Kate		4,088
14.	Grade No. 13. Jessy		3,969
15.	Grade No. 16, Beauty (two-year-old)		3,943
16.	Pure-bred, Maxy's Beauty		3,882
17.	Pure-bred, Barbara Jensen		3,591
18.	Pure-bred, Black Belle		3,572
19.	Pure-bred. Vrouka 5th Abbekirk		2,967

HANDLING OF HORSES.

Most of the horses kept on the farms are mares. These are all bred, and those which do not prove to be in foal are used to do the heavy work.



In the winter months these horses are allowed to run outside with a shed for shelter. They are given all the straw, water and salt they want, and green sheaves night and morning. A couple of teams are stabled all the time to do the regular hauling of feed, ice, fuel, etc. Towards spring they are all taken into the stable and fed hay and oats to prepare for spring work. At this time they are also fed some boiled oats or barley once a day. The horses inside get green oat sheaves twice a day, with hay at noon and boiled feed mixed with cut green sheaves at night. In cases where heavy work is being done dry oats and bran are fed in amounts depending on the work they are doing.

SHEEP HANDLING:

Little has been done as yet with sheep. The first flock has been established at Vermilion. These are Oxford grades with a few purebred Oxfords. An open shed has been built for protection. A low feeding rack with trough is located partly inside this shed and partly in the open. Prairie hay is fed twice a day with a small feed of ground oats once a day. Some bright clean oat straw is also available to them at all times, as is also salt and water. The ewes were bred to lamb in the latter part of April and May.

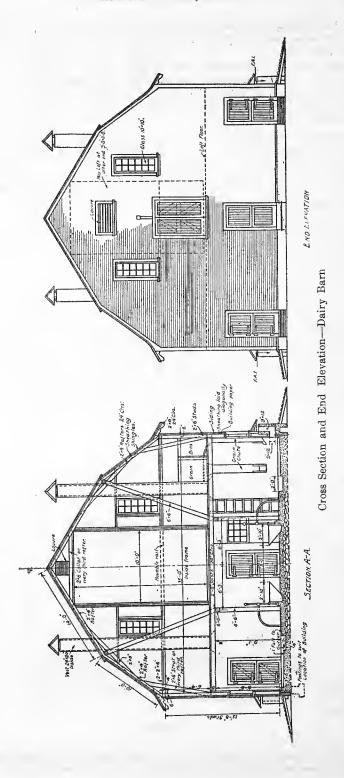
HANDLING OF HOGS.

Pure-bred Berkshire hogs are kept at Claresholm, Medicine Hat and Vermilion; Yorkshires at Olds, Stony Plain and Scdgewick, and a few Tamworths at Olds. The sows are bred to farrow in the fall and spring, and the young pigs are sold to farmers at weaning time. The breeding hogs run with the feeding steers in winter, getting most of their living from what is wasted by the cattle. In this way the hogs get lots of exercise, and cost very little in the winter months. As the sows become heavy with pig, they are removed from the steer yard so as to prevent injury by the steers. The sows are then fed ground grain, principally oats, with some roots—either mangels or turnips—and where milk is separated they are fed some skimmed milk. In some cases middlings, shorts and oil cake meal are added to the grain ration in small quantities. As soon as the young pigs will eat, they are given some skimmed milk, and later skimmed milk and shorts, or in some cases ground oats with hulls sifted out.

In summer time, where possible, all the hogs are allowed to run on a pasture of rape, green oats, barley or rye, in addition getting a ration of ground oats and barley or shorts in quantities depending on the age of the hogs and the supply of the material. The pasture materially reduces the cost of some of the feeding.

FEEDING STEERS.

This has been one of the first lines of work undertaken. Success depends on definite principles. A very important part of the work of feeding steers for profit comes on the day when you make the selection of animals. There is such a wide difference in individuality, even in a bunch of comparatively even quality, that there is wide room for difference in results, even in a change from the profit to the loss side of the account.



The animal we should always aim to secure is the thick, broad, low-set, contented-looking type, carrying flesh on top with plenty of heart-girth and broad, short head, indicating vigor and intelligence. What we try to avoid is the rough, loose, leggy animal with thin, long head and horns. It is impossible to make a satisfactory feeder out of an animal of this kind; and not only does he prove unsatisfactory himself, but as an animal of this type is frequently wild, he disturbs the rest of the stock. It is quite possible to have an animal of this kind actually lose weight after having been fed under the same conditions as other steers that put on 250 lbs. in six months. It is, of course, advisable to watch for the diseased animal in selecting your feeder. Generally the sick animal will show some signs of ill-health by its coat and general lack of vigor, but even this may not be an indication in such diseases as lump jaw, and this should be especially guarded against.

We also avoid as far as possible white cattle. They do not seem to stand the cold so well. It is a singular fact that white colored animals have not done so well in the feed lots in the different stations as the darker, richer colored animals. This is also true of dull yellow colors, or blacks with sun-burnt backs, and in selecting it is well to avoid animals

of these kinds.

Three-year-old steers produce the best results. Younger animals do not stand colder weather so well, nor will they stand the heavy feeding, so the actual gains are not so great as with the older animals. While five-year-old animals in some cases feed well, there is always difficulty that in purchasing five-year-olds you probably get the rough ones cut out by the buyer the previous year, and, of course, their growth is not so great as the four-year-old. Strict attention to the selection of the animals is the all-important feature in the laying of the foundation of successful feeding.

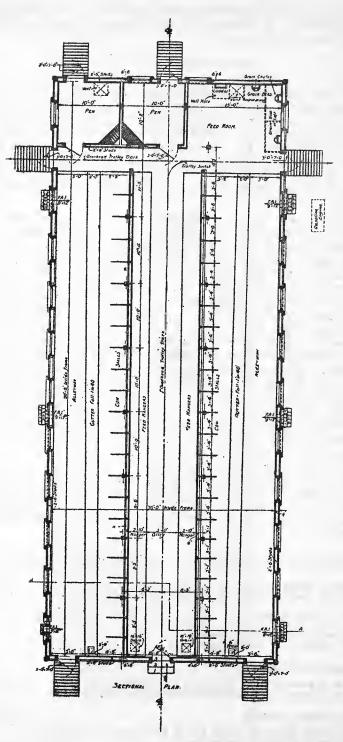
Handling.

It is essential in feeding that the animals should be kept as quiet as possible. This can be accomplished by having only one regular attendant. The cattle get familiar with him, and there is not the same alarm at his presence in the yard.

The shelters used on the different farms require little description. The cheaper those are the better, providing they serve the purpose of holding the cattle. Two of the yards are located beside the barns which give a certain amount of protection from the winds. On the north and west side we have an eight-inch close-board fence. On these fences we have feed racks similar to those used in the ordinary railroad stock-yard. They are made by using 2 x 4 scantling placed about six inches apart. The long feed is stacked just outside this fence, and is thrown over the fence into the racks. We have a long table with eight-inch sides for cut feed and chop. This table should be about three feet high and four feet wide, and it requires about three feet per steer for feeding space. One bunch of steers was fed entirely in the open with nothing but a bluff for shelter. In this case we had a V-shaped rack built for feeding the long feed, and used the tables the same as in the enclosure for cut feed and chop.

Watering.

The steers were watered in each case from a galvanized iron tank. The ice was kept off the water by means of a heater set in the tank. This



Plan-Dairy Barn

is an especially constructed heater for the purpose, and the water comes in contact with it. A comparatively small amount of coal is sufficient to keep the water from freezing.

Feeding.

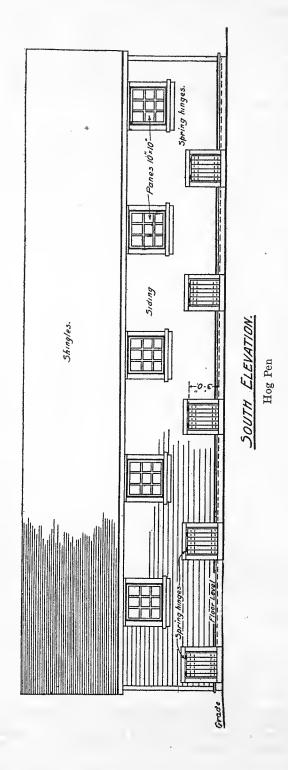
The steers were divided into three lots: All of No. 1 were fed cut feed entirely, principally green oats and some wheat with chop in addition. All of lot No. 2 were fed sheaf oats and cut feed twice a day with chopped feed mixed with it. All of No. 3 were fed sheaf oats and wheat, and the chopped grain was fed separately. Although our results have extended over one year only, and as such cannot be absolutely conclusive, they were in favor of the cut feed and chop mixed. There was not much difference, however, between this against long feed with cut feed and chop mixed.

One strong point in mixing the chop with cut feed is that each steer is more likely to get his fair share of the feed. Where the chop is fed alone, some animal is sure to get more than his just share. Not only does this deprive the more timid animal of sufficient, but it is apt to give too much to the other, and thus put him off his feed. So far as our experiments go, it would indicate that it does not pay to have the grain ground exceedingly fine. We were enabled to feed much more heavily with the coarse ground feed, and there was much less liability for the animals to go off their feed. Where we were feeding coarsely ground chop we were able to bring them up to an allowance of 14 lbs. per day; and where it was finely ground it was with difficulty that they could stand 12 lbs. per day. Of course, in the beginning, to feed the chop a start was made at about three pounds, and the ration gradually increased, until a maximum of 12 or 14 lbs. was reached. The chop was started about the first of the year, and in two and one-half months the cattle were on full ration. The chop consisted of oats and barley, or oats and frozen wheat. The frozen wheat did not give very good results. Definite statement of this cannot be made as yet, but indications point that way.

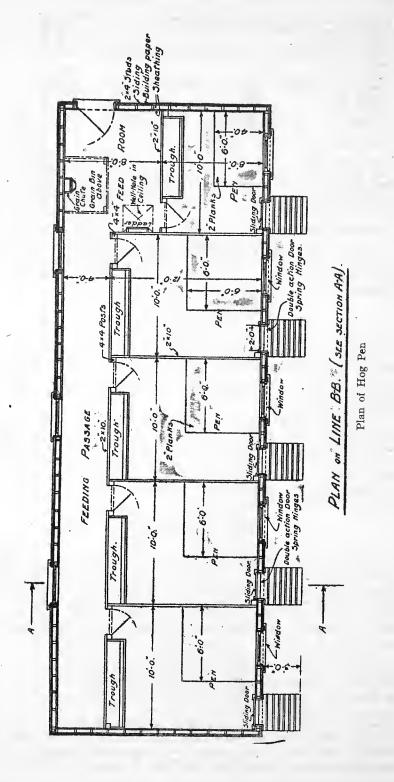
Of course, our experiments are in a large measure inconclusive. Definite results in this line can only be secured by work covering a number of years, but the results so far have been satisfactory and more work will be carried on from time to time. The results of the experiments at Claresholm, Olds and Vermilion can be gleaned from the following figures:

Statement of Steer Feeding at Claresholm Demonstration Farm.

Weight of 22 steers weighed out on May 27th Weight of 22 steers weighed in on November 22nd, 1911.	33,130 26,855
Total gain in weight	
Average weight of 22 steers weighed out	
Average gain per head	
By sale of 22 head of cattle May 27th at \$6.60 per 100 By gain in weight of 4 hogs running after steers, \$9 per hog	
Total amount realized	\$2,222.58
To cost price of 22 steers, 26,855 lbs. at \$4.80 per 100\$1,289.04	
To freight from Pagan to Claresholm	
To interest on note five months at 7%	



To feed of steers: 227.00 Grain 227.00 Green feed 316.00 Wild hay 35.50 Salt 2.00 Labour 120.00 Gasoline 15.00	
Total cost of steers	\$2,059.13
Total net gain Net gain per head. Average selling price per steer, including profit of \$36 gain in weight of hogs Average purchase price per steer.	\$7.43 \$101.02
Gross profit per head	\$41.76
Statement of Steer Feeding at Olds Demonstration Farm	
Weight of 98 steers weighed out on May 29th	147,950 1,350
Weight of steers weighed in on October 30th, 1911	149,300 127,540
Total gain in weight	•
Average weight of 99 steers weighed out	1,509 1,275
Average gain per head	234
By sale of 99 head of cattle May 29th at \$6.65 per 100	70.70
Total amount realized\$	0,148.05
To price of 100 steers, 127,540 lbs. at $4\frac{1}{2}$ c \$5,739.30 To interest on note, seven months at 7% 234.00 To feed of steers:	
Grain 1,456.10 Wild hay 468.40 Green feed 498.00 Salt 10.00 Labour 700.00 Gasoline used for cutting and grinding feed 30.00	9,135.80
Total net gain \$ Net gain per head Average selling price per steer, including profit of \$72 made on	1,012.25 \$10.12
gain in weight of hogs	\$101.48 57.39
Gross profit per head	\$44.09
Statement of Steer Feeding at Vermilion Demonstration Far-	m.
Weight of 69 steers weighed out on May 7th	93,825 88,480
Total gain in weight	5,345
Average weight of 69 steers weighed out	1,360 1,264 6,632.25



To freight from Fort Saskatchewan to Vermilion To brand inspection To interest on note from November 22nd to May 17th, 1912	4,202.80 93.00 3.50 151.01	
To feed of steers:	400 05	
Hay	169.25	
Oats, barley, wheat	500.00	
Green feed	654.00	
Gasoline	27.71	
Labour	225.00	
Total cost of steers		\$6,031.77
Total net gain		\$600.48 \$8.70
Average selling price per steer, including profit of \$99 gain in	weight	
of hogs	-	
Average purchase price per steer		60.04
Gross profit per head		\$36.08

Better results could probably be obtained with further experience. But from results so far accomplished, we feel justified in undertaking further work along this line, and in considerably extending our field of operations.

FARM WORK AND TILLAGE.

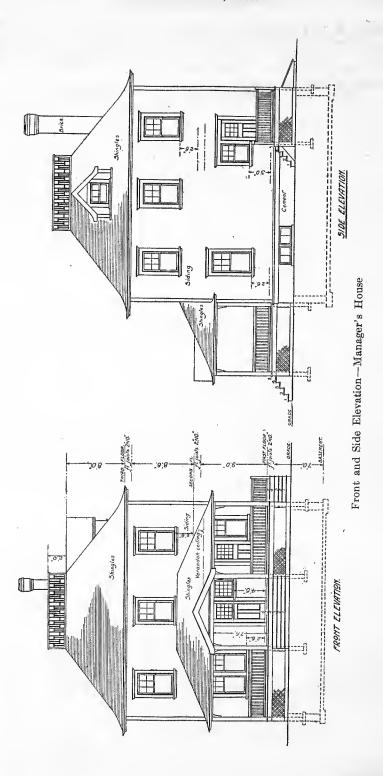
It is too early as yet to lay down definite methods of cultivation. In this report we practically confine operations to a record of the work done. Later on when what were only a short time ago stretches of unbroken prairie have become cultivated farms, it will be possible to compare methods of tillage and also methods of general farm operations and draw more definite conclusions.

The fencing of the various farms is done with woven wire and eightinch split cedar posts placed about one and one-half rods apart. Barb wire is used on the top. These fences surround the farm on each and every side. Very little cross-fencing has as yet been done, and no permanent pastures have been laid down. Forage crops, such as oats, fall and spring rye and beardless barley, are used temporarily, wire fences having been used for fencing these off.

Methods of Cultivation.

Practically all the farms were raw prairie when purchased. The land was broken about five inches deep. The breaking at Medicine Hat, Sedgewick and Clarcsholm farms was done in the latter part of May and June. At Olds and Stony Plain and Vermilion, where the soil was deeper and heavier, the breaking was commenced as soon as the spring work was completed, and continued until the first week in September, except for a few days when the ground was too dry.

In the brush land, the breaking was done from seven inches to nine inches deep in order to get below the roots and make a thorough job of the plowing. The land was thoroughly packed and throughout the season was disced and harrowed sufficiently often to hold the moisture in the ground and to assist in the rotting of the sod. Effort was made to have the breaking thoroughly uniform, both as to depth and the clearness with which the furrow was cut and turned. As soon as the land could be worked in the spring, a good seed-bed was prepared, and where the land seemed dry a packer was used after seeding. In most cases this was not



necessary as the pressed drill was used on all the farms, and most of the ground was in excellent condition from the breaking of the previous summer. Some fall plowing was done, although the pressure of other work in getting the farm in shape prevented as much being accomplished as otherwise would have been done.

At Medicine Hat farm some land was broken three inches deep early in the season, and later, when the sod had rotted, this was backset to a depth of five and one-half inches. The land was packed and harrowed immediately after plowing in each case. No crop has been taken off this as yet, and it is impossible to get report of results.

The soil being widely different on the various farms, there is considerable variation in the crops sown. Kharkoff wheat was sown at Medicine Hat and Claresholm. Spring wheat was sown at Medicine Hat, Claresholm, Sedgewick and Vermilion. The varieties used were Red Fife, No. 46, and Marquis. The soil of these four farms is of lighter nature than at Olds and Stony Plain, consequently permitting earlier sowing and more rapid ripening.

Oats and barley were sown on all the farms, not only for seed purposes but for feed, and the oats for a supply of green sheaves for feeding to all classes of stock.

At Medicine Hat some Turkestan alfalfa was sown, about ten pounds per acrc. A seed-bed was prepared by summer fallowing the previous year. On ground so well prepared it might be well to use a little less seed per acre as the stand seems to be too thick. Small patches of alfalfa have also been sown at Sedgewick and Vermilion. Eight acres of corn were planted at Medicine Hat, which reached the height of seven feet. This was cut and stooked in the field, later being run through the cutting box, and is now being fed to the dairy cattle.

At Medicine Hat, Stony Plain and Vermilion from seven to ten acres of potatoes were grown on each farm. The yield running from 250 to 300 bushels per acre. Turnips and mangels were grown at Sedgewick, Claresholm and Stony Plain. The turnips gave much larger yields than mangels, and were an exceedingly good crop on every farm. Perhaps with longer cultivation, deeper plowing and more manure the mangels might have given better results, but so far as our experience went they were not so satisfactory as turnips.

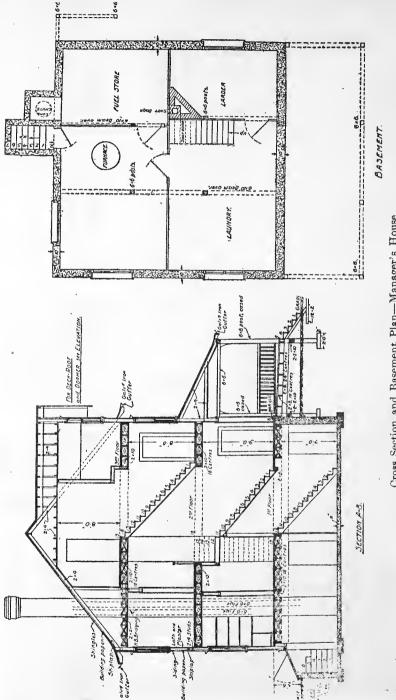
Assets on December 31st, 1912.

Athabasca Landing.

Land		\$ 16,908.50
Stony Plain.		
Land Buildings Cattle, etc. Machinery, etc. Feed, seed, etc., on hand	\$ 18,720.00 15,000.00 10,227.00 3,220.00 3,250.00	\$ 50,417.00
$Vermilion\ Farm.$		
Land	\$ 16.000.00	

Buildings

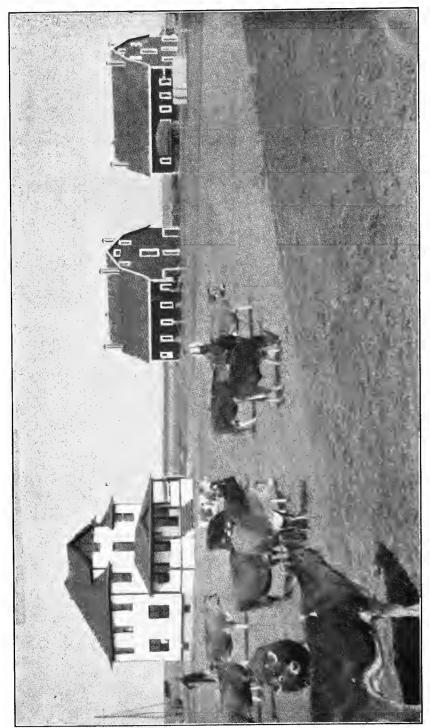
15,000.00



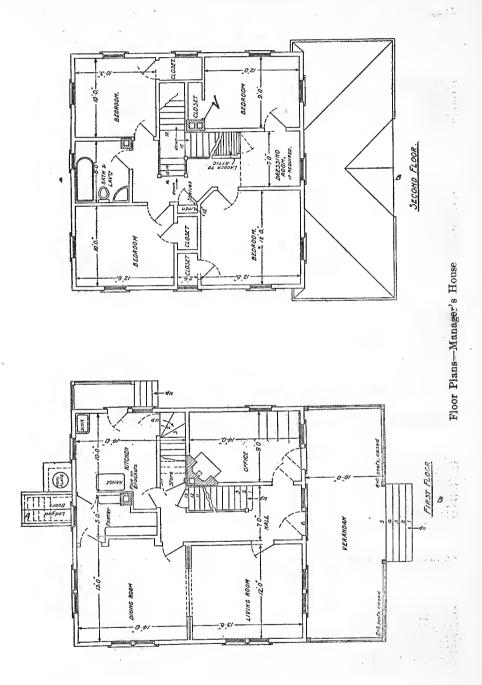
Cross Section and Basement Plan-Manager's House

DEPARTMENT OF AGRICULTURE

Cattle, etc. Machinery, etc. Feed, seed, etc., on hand	11,279.00 3,762.75 2,140.00 \$ 48,181.75
Sedgewick Farm.	
Land . Buildings Cattle, etc. Machinery, etc. Feed, seed, etc., on hand	15,000.00 15,735.00
Olds Farm.	
Land Buildings Cattle, etc. Machinery, etc. Feed, seed, etc., on hand	\$ 16,000.00 15,000.00 10,896.00 3,275.00 1,530.00 \$ 46,701.00
Claresholm Farm.	
Land Buildings Cattle, etc. Machinery, etc. Feed, seed, etc., on hand	\$ 17,255.15 15,000.00 10,505.00 3,440.76 4,376.00 \$ 50,576.91
Medicine Hat Farm.	
Buildings Cattle Machinery, etc. Feed, seed, etc., on hand	\$ 15,000.00 13,242.00 3,044.00 1,655.60 \$ 32,941.60
	\$314,515.51
REVENUE RECEIVED FROM THE DEMONSTRATION 1912.	Farms for the year
Stony Plain Farm.	
Dairy Roots and vegetables	\$ 282.21 200.84
Vermilion Farm.	
Capital account Dairy Poultry Steers Hogs Horses Vegetables and roots	\$ 81.20 1,423.85 23.23 1,978.32 256.50 2.00 202.00 \$ 3,967.10

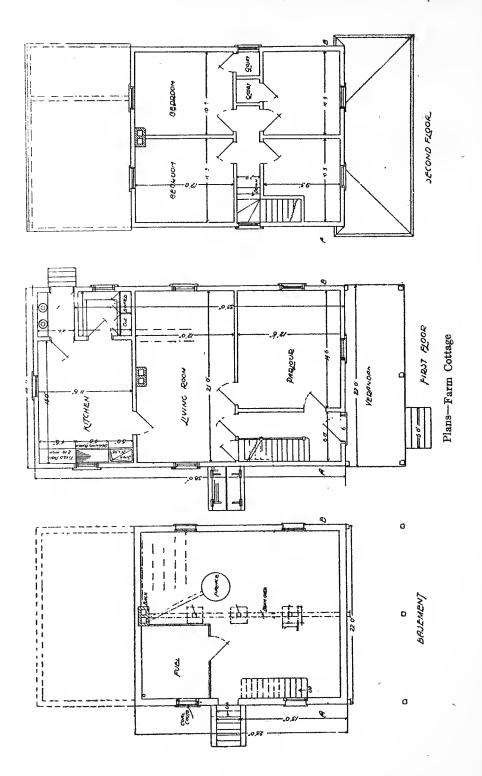


No. 8.—Jerseys on Demonstration Farm, Medicine Hat.



Sedgewick Farm.

Dairy	\$	234.24	e	2 3 4. 24
			Ψ	201.21
$Olds\ Farm.$				
Capital account Dairy Steers Hogs Horses	\$	475.00 2,535.02 4,034.96 65.00 450.00	\$	7,559.98
${\it Claresholm \ Farm.}$				
Capital account Dairy Steers Hogs Horses Wheat	\$	228.00 1,332.48 843.00 40.50 23.85 382.00	\$	2,849.83
Medicine Hat Farm.				
Capital account Dairy Poultry Hogs Vegetables and roots	\$	175.00 3,482.95 13.20 82.00 14.20	\$	3,76 7.35
			·_	18,861,55
VALUE OF FEED AND SEED GROWN ON THE DEM THE YEAR 1912.	ons	STRATION		
Stony Piain Farm Vermiiion Farm Sedgewick Farm Oids Farm Ciareshoim Farm Medicine Hat Farm	*	2,110.00 2,215.00 5,039.75 1,710.00 4,415.00 1,275.00	\$	16,764.75
VALUE OF INCREASE IN LIVE STOCK ON THE DEM THE YEAR 1912.	ON	STRATION	FA	RMS FOR
Stony Piain Farm Vermiion Farm Sedgewick Farm Olds Farm Claresholm Farm Medicine Hat Farm	\$	160.00 384.00 680.00 850.00 740.00 875.00	\$	3,689.00
Total Assets.				
Total assets			\$8	314,515.51



DEPARTMENT OF AGRICULTURE

$Total\ Expenditure.$

H. A. CRAIG, Superintendent of Demonstration Farms.				
Respectf	ully submitted,		\$ 35,310.3V	
Cash revenue		16,764.75 3,689.00	\$ 39,315.30	
Capital account Operating expenses TOTAL PRODUCTION	ON OF FARMS FOR	27,329.50	\$286,516.32	
Capital account		\$259,186.82		

14.—APPENDICES.

APPENDIX A.

ALBERTA HORSE BREEDERS' ASSOCIATION.

FOURTEENTH ANNUAL REPORT.

HON. DUNCAN MARSHALL,

Minister of Agriculture.

SIR,-

I beg to submit herewith the fourteenth annual report of the Alberta Horse Breeders' Association for the year 1912-13.

The annual meeting of the Alberta Horse Breeders' Association was held in the horse show building, Calgary, Monday, April 7th, 1913.

MINUTES OF THE ANNUAL MEETING.

The president, Mr. Geo. Lane, in the chair.

The minutes of the last meeting were adopted as read.

The secretary then read the annual report and presented the financial statement.

Moved by Mr. Ruttle, seconded by Mr. R. Von Strallendorf,-

That the annual report and financial statement for the past year be adopted as read.

Moved by Mr. Ruttle, seconded by Mr. Thorburn,-

That Mr. Geo. Lane be appointed to represent this association at the meeting of representatives of live stock associations from the four western provinces, to be held on Thursday next at Calgary. Carried.

Moved by Mr. Tyler, seconded by Mr. Wright,—

That the election of officers be proceeded with by a show of hands. Carried.

ELECTION OF OFFICERS.

The election resulted as follows:

PATRONS.

Hon, G. H. V. Bulyea, Lieutenant-Governor of Alberta. The Mayor of Calgary.

The Mayor of Edmonton.

The Mayor of Lethbridge.

The Mayor of Medicine Hat.

The Mayor of Wetaskiwin.

The President of the Calgary Industrial Exhibition.

Hon. President.—A. L. Sifton, Premier of Alberta.

President.—Geo. Lane, Calgary.

First Vice-President.—Dr. J. C. Hargrave, Medicine Hat.

Second Vice-President.—John A. Turner, Calgary.

Secretary and Managing Director .- E. L. Richardson, Calgary.

EX-OFFICIO DIRECTORS.

Hon. Duncan Marshall, Minister of Agriculture, Edmonton.

Hon. John Bright, Live Stock Commissioner, Ottawa.

BREED DIRECTORS.

Ciydesdales	H Banister Davishurg
Shires	
Percherons	
Thoroughbreds	
Coach Breeds	.G. E. Goddard, Cochrane.
Standardbreds	
Ponies	.O. E. Brown, Calgary.
Shetland Ponies	
Suffolk Punch	
Belgians	
Heavy Draft	
Roadsters	
Carriage Horses	
Agricultural Horses	.Bryce Wright, De Winton.
Cartage Horses	
Delivery Classes	
Saddle Horses	

BREED DIRECTORS.

G. S. Rosamond, Innisfail. Geo. Roels, Calgary. F. Bedingfield, Pekisko. Alex Galbraith, Edmonton. Count B. de Charnace, Glenbow. W. W. Hunter, Olds. F. C. Lowes, Calgary. C. R. de la Vergne, Gienbow. Thos. McMillan, Okotoks. Duncan Clark, Cluny.

HONORARY DIRECTORS.

W. F. Stevens, Live Stock Commissioner, Edmonton. Dr. J. G. Rutherford, Supt. of Animal Husbandry, C. P. R., Calgary. Dr. Tolmie, Live Stock Rept. for the Dominion, Victoria.

Mr. McDonald, Live Stock Commissioner, Victoria.

J. C. Smith, Live Stock Commissioner, Regina. J. T. Scott, Edmonton.

H. S. Arkell, Asst. Live Stock Commissioner, Ottawa.

The question of the color of the first and second prize ribbons used at the horse show was discussed, and left to the directors to decide what colors should be used at the next show.

Mr. Archie McKillop, Calgary, advised the meeting that he would offer a cup to the value of \$100 each year for five years, at the spring horse show, in the Standardbred classes, which offer was very much appreciated by the members present.

The meeting then adjourned.

ANNUAL REPORT OF THE SECRETARY.

GENTLEMEN,-

I beg to submit herewith the fourteenth annual report of the Alberta Horse Breeders' Association, being for the year 1912-13.

The year 1912 was an important one for the Alberta provincial Lorse show on account of the splendid new horse show building erected by the city of Calgary, and used for the first time for the horse show held April 9th to 12th. The building was a very great convenience to both the visitor and the exhibitor, and made it possible for the show to take a big stride forward. A comparison of the number of entries, the gate receipts and the prizes paid for the past five years is as follows:

	1908	1909	1910	1911	1912
Number of entries		615		960	
Gate receipts	no admission	\$2,008 75	\$4,479.70	\$4,600 10	\$8,789 30
	charged]	-		,
Prizes paid	\$444 57	\$2,708.86	\$3,734 09	\$4,648.42	\$5,830,55

It will be noticed that the entries increased by 75; the gate receipts increased \$4,189.00 over the previous year, and the amount paid out in prizes shows an increase of \$1,182.13.

The building was very suitably decorated and the arena was lighted with seventy-two 250 watt lights which made the building almost as satisfactory for judging in the evening as in the afternoon. The show was officially opened on the evening of April 9th by His Honour, Lieutenant-Governor Bulyea, and the awards in the different classes placed by the following judges:

Dr. H. B. Medd, Victoria, B. C., Thoroughbreds, Saddle and Hunters; Alex Galbra th, De Kalb, Ill., Clydes, Shires and Purebred Hackneys; W. L. Carlyle, Moscow, Idaho, Percherons, Belgians and Suffolk Punch; Andrew Laidlaw, Spokane, Wash., Standardbred and Coach, Purebred classes, Roadsters and Carriage Horses; W. J. Clements of Vancouver acted as ringmaster; and E. C. Hallman of Alsask, Sask., acted as Live Stock Superintendent.

As usual the afternoon set aside particularly for school children was a success, being thoroughly enjoyed by a very large number of children, who will be the exhibitors and competitors of the horse show in the near future.

The general improvement from year to year in the quality of the exhibits is most satisfactory. One cannot help but be surprised at the development when comparing the show of 1912 with the show of three or four years ago. It is hoped that the co-operation of the exhibitors together with the splendid natural advantages of the province of Alberta for horse raising will continue to make it possible to show as much improvement in the future as in the past, and that the citizens of Calgary as well as from various parts of the province will continue to patronize the show so that it may be a success financially.

REDUCTION IN FREIGHT RATES.

During the year the executive committee of the live stock associations met Mr. A. Price, general superintendent of the C. P. R., and H. C. McMullen, general live stock agent, requesting that the weight of stallion foals shipped by rail should be reduced from 4000 to 2000 fbs. A request was made for arrangements whereby shippers of purebred stock may be able to complete a carload at various points en route, and to unload at various stations by paying the through carload rate and \$3 for the first stop and \$2 for subsequent stops. They are pleased to be able to report that both of these requests have been complied with, and are now included in the C. P. R. Tariff No. W 2676. A shipper of purebred stock may therefore now bill a carioad of purebred horses at half rate from, say, Calgary to Red Deer, and has the privilege of unloading one or more animals at, say, Didsbury for \$3 extra, and at Innisfail for \$2 extra. Previously it would be necessary to bill the animais to Didsbury and to Innisfail in less than carload shipments from Calgary to these points, aithough the shipper may have been sending part of a carload through to Red Deer at the same time.

LIVE STOCK SHIPPING REGULATIONS.

Your committee appointed to meet similar committees from the other associations in regard to the proposed live stock shipping regulations, held a meeting during the year, and beg to report that each time the regulations are gone over, the provisions in same are made more equitable between the shippers and the railway companies. Another meeting is to be held at which it is hoped arrangements will be completed for the adoption of these regulations.

Regarding the proposed new live stock shipping contract which has been under consideration by the live stock representatives of Canada, I understand that it has not been possible to come to a satisfactory adjustment with the various railway companies, and that the matter will, therefore, be submitted to the Railway Commission for settlement.

RANCH COMMISSION.

During the year the Ranch Commission appointed by the Dominion government held meetings throughout the province and the undersigned as secretary of the Alberta live stock associations, assisted in securing representative meetings. It is hoped that the report of the commission will be such as to place ranching interests generally on a more satisfactory basis.

MIXED FARMING.

The general sentiment towards mixed farming and live stock breeding in Alberta which has been rapidly gaining in strength, particularly during last year, is most encouraging. The cheap grain, and in some cases the frosted grain have been unfortunate but seemingly necessary lessons in the way of turning the attention of farmers from straight grain growing to mixed farming and stock raising. It is hoped that the residents of the province will go more extensively into stock raising as rapidly as their finances will permit.

You will at this meeting he asked to appoint a representative to attend the joint meeting of similar representatives from the horse, cattle, sheep and swine breeders' associations of Manitoha, Saskatchewan, Alberta and British Columbia, which will meet in Calgary on Friday of this week to discuss the question of western representation on the hoards of breed societies having their head offices in eastern Canada, also matters connected with the international records, and other questions which the western live stock associations are of the opinion should be taken up in order to properly look after the live stock interests of western Canada.

I attach hereto a copy of the financial statement for the year 1912, and am pleased to report a balance on hand of \$1,054.56 which is an increase of \$245.36 over the balance on hand last year, although the amount paid in prizes increased over \$1,000, and there was a general increase in the expenses of the show consequent upon its development. The statement has heen audited and certified to by Mr. James B. Sutherland, chartered accountant of Messrs Webh, Read & Hegan, Calgary.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1912.

$Income\ 1912.$

Gate Receipts Alherta Government Grant Dominion Government Grant Donations Entry Fees Advertising Membership Fees Sundries	\$ 8758.80 2000.00 216.67 1055.00 1281.00 265.00 230.00 92.90	
Total Receipts 1912		\$13899.37
$Expenditure\ 1912.$		
Prizes	\$ 5696.75	
general grounds expense	5443.16	
and general office expense	$1589.28 \\ 924.82$	
Total expenditure 1912		\$13654.01
Excess of receipts over expenditures 1912		245.36 809.20
Balance on hand		\$ 1054.56

Calgary, 10th March, 1913; audited and found correct, (Sqd.) James B. Sutherland, Chartered Accountant, Auditor.

Following is a list of prize winners at the horse show of 1912:

LIGHT HORSES.

Thoroughbred	stallion 4	uears	or	over.
I HUI UWUHUI EW	Summer, T	quais	U,	UUUI

1st	Sinbad	David Smith, Carbon.	
2nd	Wallaby .	D. P McDonald, Cochrane	∍.
		J. H. Wilson, Grenfell, Sa	

Stallion, 3 years old.

1st Ben Ara...J. C. C. Bremner, Clover Bar.

Mare, 4 years or over.

1st	Ayrwater Murray Hendrie, High River.
2nd	Miss Alva Scott
3rd	Reevia

Mare, 3 years old.

1st	Elsie Hart	
2nd	Winnie Wells	
3rd	Alberta	Caldwell & Hunter

Mare, 2 years old.

1st	Cyclamont	 . Da	vid	Smit	h, Carbon.
2nd	Revel	 M.	J.	Carr,	Calgary,

Stallion, 3 years old and upwards, suitable for getting saddle horses and hunters.

1st	Sinbad	David Smith, Carbon.
2nd	Wallaby	D. P. McDonald, Cochrane.

Champion Thoroughbred stallion.

Sinbad	David Smith, Carbon.
Reserve: Ben Ara	J. C. Bremner, Clover Bar.

Champion Thoroughbred female.

Ayrwater	• • • • • • • • • • • • • • • • • • •	Murray	Hendrie,	High	River.
Reserve:	Cyclamont	David S	Smith, Ca	rbon.	

Three, purebred or grade, any age or sex, bred in Alberta, the progeny of one registered sire.

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1st Three progeny of Wallaby....D. P. McDonald, Cochrane.
2nd Chalcedony, Chancellor and
Carburetor.....W. H. Cochrane.
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STANDARDBREDS.

Pacing s	stallion.	4	years	old	or	over,	to	be	shown	in	harness	to	a	bike	cart
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1st	I. G. Ruttle	Geo. T. Haag, Calgary.
2nd	Alberta Boy	Louden & Powell, Calgary.
3rd	M. S. McCarthy	Geo. T. Haag, Calgary,

Trotting stallion, 4 years or over, to be shown in harness to a bike cart.

1st	W. H. S	Geo, T. Haag, Calgary.
2nd	Glen Winters	W. J. Halliday, Calgary.
2rd	General Bryson	J. E. Shultz, Placher Creek.

Standardbred stallion, 3 years old.

1st	Prince PongJ.	R.	Sutherland,	Calgary.
2nd	Alberta PrldeJ.	A	McDonald,	Calgary.
3rd	Ambassador ToddA.	R	obblns, Laur	a. Sask.

Stallion, 2 years.

Chestermere Wicks......J. A. McCullough, Calgary.

Mare, 4 years or over.

1st	HydrangeaWm. Parslow, Calgary.
2nd	Laura LobartlF. W. Ings, Nanton.
3rd	Inez McGregorMlss Jessle McVelgh, Calgary

Mare, 3 years.

1st	Countess PeterJohn	n I	Daly, Granun	a.
2nd	Chestermere QueenJ. A	1 . 1	McCullough,	Calgary.

Mare, 2 years.

1st	MalnchlefH.	В.	Somerville, Calgary.
2nd	Alba McGregorF.	Η.	McLean, Calgary.

Mare and two of her progeny.

1st	Marjorie	Fai	rthorn	 J.	\mathbf{R}	Sutherland,	Calgary.
2nd	Chesterm	ere	Princess	3J.	A.	McCullough,	Calgary.

Champion Standardbred stallion.

Prince Pong	J. F	R. S	utherland,	Calgary.
Reserve: W. H. S	, Geo	o. T	Haag, Ca	ılgary.

Champion Standardbred female.

Mainchlef			H.	В.	Somerville,	Calgary.
Reserve:	Mariorle	Fairthorn	J.	R.	Sutherland.	Calgary.

HACKNEYS (REGISTERED.)

Stallion, 4 years or over.

	Stallion, 4 years or over.
	Devondale
	Pony Hackney (Special.)
1st	Sir BancockBen Finlayson, Claresholm.
St	allion, any age, shown to harness to an appropriate vehicle
	Stallion, 3 years.
1st 2nd	Marshall RosadorRobt. M. Sheffield, Sedgewick. Lord LyonWm. Moodie, De Winton.
	Stallion, 2 years.
1st	Senior DeaconJohn Weir, Carbon.
	Stallion, foaled in 1911.
1st	Fireboot
	Mare, 4 years or over.
1st 2nd 3rd	Lady Tuck
	Mare, 3 years.
	White Silk
	Mare, 2 years.
Lst 2nd 3r d	Wild Rose
	Filly, foaled in 1911.
1st 2nd	RedbriarR. W. Trotter, Glenbow. Terrington Lily 2ndR. W. Trotter, Glenbow.
	Mare and two of her progeny bred in Canada.

 1st Fimber Pride.
 R. W. Trotter, Glenbow.

 2nd
 J. J. Richards, Red Deer.

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Special—Three progeny of one registered sire.	
1st The Mallard	
Champion Hackney stallion.	
Le Roi John Weir, Carbon. Reserve: Sir Bancock Ben Finlayson, Claresholm.	
Champion Hackney female.	
Lady TuckF. C. Lowes, Calgary.	
COACH BREEDS (REGISTERED.)	
Coach stallion, 4 years or over.	
1st Fra DiavoloG. E. Goddard, Cochrane. 2nd Maxime, 12G. E. Goddard, Cochrane.	
Stallion, any age, shown in harness to an appropriate vehicle.	
1st Fra Diavolo G. E Goddard, Cochrane. 2nd Maxime, 12 G. E. Goddard, Cochrane.	
Mare, 4 years or over.	
1st Mimi	
Three (purebred or grade, any age or sex) bred in Alberta, progeny of one registered sire.	f
1st Three progeny of MaximeG. E. Goddard, Cochrane. 2nd Three progeny of NapoleonD. P. McDonald, Cochrane.	
LIGHT GRADE FOALS.	
Light Grade foal of either sex, foaled in 1911, sired by registered light stallion.	
1st Lizzie Waters	
SHETLAND PONIES.	
Shetland stallion over 1 year.	
1st Sunshine	
Shetland mare over 1 year.	
1st FlorenceMrs. H. Minchin, Calgary.	

Shetland foal of 1911.

1st	Foa!	of	Florence	Mrs	н	Minchin	Calgary
~~~		O.	T 101 CHCC	 · will w.	***	MITMORIN'	Careary.

# II.—HEAVY HORSES.

## CLYDESDALES.

# Stallion, 5 years or over.

1st	Dunure Pebble	John Sandilands, De Winton,
2nd	Mainspring	J. & D. Clark, Crowfoot.
3rd	Baron Leith	.C. F. Lyall, Strome.
4th	Mascarille	John Graham Carberry, Man.
5th	Pride of Lindsay	Geo. Spence, Cremona.

# Stallion, 4 years.

1st	Royal Diadem	John A. Turner, Calgary.
2nd	Dunoon	G. O'Brien, Calgary.
3rd	King's Counsel	Rowland Ness, De Winton.
4th	McGregor's Chief	Rowland Ness De Winton.

# Stallion, 3 years.

1st	Slogarie Geo. O'Brien, Calgary.
2nd	Yokohama J. & Duncan Clark, Crowfoot.
3rd	BogdavieJohn A. Turner, Calgary.
4th	Hopeful of SilverspringsJohn Graham, Carberry, Man.
5th	Royal Renown

# Stallion, 2 years.

1st	Dunure Relic	 $\dots$ John	A. Turner, Ca	algary
2nd	Scottish Crown	 $\dots$ John	A Turner, Ca	algary
3rd	Alberta Chief	 A. L.	Dollar, High	River.
4th	Alberta Sentinel.	 A. L.	Dollar, High	River.
5th	Alberta Prince	 A. L.	Dollar, High I	River.

# Stallion foaled in 1911.

1st	Donald Norton of	Crowfoot	John	Clark, J	r., Gleichen.
2nd	Oakburn's Heir.		.A D.	Shore,	Gleichen.
3rd	Dunure Jack		. Geo.	O'Brien	. Calgary.

# Stallion, 2 years or under, bred in Canada.

1st	Donald Norton of CrowfootJohn Clark, Jr., Gleichen.
2nd	Oakburn's Heir A D. Shore, Gleichen.
3rd	Gay Boy J. & D. Clark, Crowfoot.
4th	Bob Shirley J. W. Hayes, Calgary.

# Stallion, over 2 years, bred in Canada.

		Geo. Spence, Cremona
2nd	Baron of Moosomin	W. H. Croxford, Alrdrie.
	Dinlomat	Wm Moodle, De Winton,

## Mare, 4 years or over.

1st	Poppy	John A. Turner, Calgary.
2nd	Sweet Barlae	.Bryce Wright, De Winton.
3rd	Georgina Murray	.Geo. O'Brlen, Calgary.
4th	Tootsie	John Brennan, Calgary.

## Mare, 3 years.

1st	Iron DuchessJohn Clark, Jr., Gleichen.
2nd	Dolly AcmeJohn Clark, Jr., Gleichen.
3rd	Jess of CraigwillieArthur Norman, Springhank.
4th	College QueenGeo, O'Brien, Calgary.
5th	May MacQueenJ. & D. Clark, Crowfoot.

# Filly, 2 years.

lst	Ruhy Baroness	.John	n A. Turner, Calgary.
2nd	Nettie of Pinkiln	The	Shaw Farm, Okotoks.
3rd	Dolly D	J. W	V Haves Calgary.

## Filly foaled in 1911.

1st	Prince Elcho	D.	Thorhurn.	De Winton.
2nd	Freda	Ge	o. O'Brien,	, Calgary.

#### CLYDESDALE SPECIAL.

Three (purebred or grade, any age or sex) bred in Alberta, the progeny of one registered sire.

1st ......J. & D. Clark, Crowfoot.

Champion Clydesdale stallion.

Royal Diadem...................................John A. Turner, Calgary. Reserve: Dunure Pebhle.........John Sandilands.

Champion Clyde female.

Champion Canadian bred Clyde stallion.

Pride of Lindsay.............Geo. Spence, Cremona. Reserve: D. Norton of Crowfoot..John Clark, Gleichen.

Champion Canadian bred Clyde female.

Sweet Barlae......Bryce Wright, De Winton. Reserve: Dolly Acme.....John Clark, Gleichen.

Best team of draft mares or geldings, sired by registered Clydesdale stallion.

1st Bill and Dick..........John Clark, Jr., Gleichen. 2nd Frank and Tom......J. & D. Clark, Crowfoot.

Best single draft mare or gelding, sired by registered Clydesdale stallion.

1st	PoppyJohn	A. Turner, Calgary.
2nd	Frank J. &	D. Clark, Crowfoot.
3rd	BillJohn	Clark, Jr., Gleichen.

## SHIRES.

## Shire stallion, 4 years or over.

1st	Lambton FashionJohn Graham, Carberry, Man.
	Acle HaroldF. Schroeder, Midnapore,
3rd	Hempstead ChampionF. Schroeder, Midnapore.
4th	Norley P. H. 2ndF. A. McHugh & Sons, Calgary.

# Shire stallion, 3 years.

1st	Intake Coronation	Bradford & Lee, High River.
2nd	Armourer	S. Walker, Calgary.

# Shire mare, 4 years or over.

1st	Carlton	Alberta	Stuart	Walker.		
2nd	Juno of	Holdenby.	Murray	Hendrie.	High	River.

# Champion Shire stallion.

Lambton Fashion......John Graham, Carberry.

# Champion Shire female.

Carlton Alberta......Stuart Walker, Calgary. Reserve: Juno of Holdenby......Murray Hendrie, High River.

## PERCHERONS.

# Stallion, 5 years or over.

				W. W. Hi Geo. Lan				
3rd	Henner	• • • • • • •	 • • • • • • •	Washingt	ton	Alberta	Land	Cross- field.
				Watts & I W. W. H				neiu.

# Stallion, 4 years.

1st	IllicoW. B. Thorne, Aldersyde.
2nd	Initute
3rd	Craft

# Stallion, 3 years.

1s1	JoeufW. W. Hunter, Olds.
2nd	HadrianWatts & Porter, Calgary.
3rd	Regulateur Watts & Porter, Calgary.
4th	JacquetW. W. Hunter, Olds.
5th	Rex Watts & Porter.

# Stallion, 2 years.

1st	Kanot	.w.	w	. Hu	ater,	Olds.	
2nd	Kina	.w.	W.	Hu	iter,	Olds.	
2-4	Clarkow Cratic	0	D	4 - 1	- 370	rana	Clanhow

Stallion, foaled in 1911.					
1st Trump					
Stallion, 2 years or under, bred in Canada.					
1stFigaroG. Lane & Gordon, Ironsides & Fares.2ndHerculesW. E. & R. C. Upper, Calgary.3rdFearlessG. Lane & Gordon, Ironsides & Fares.4thForresterG. Lane & Gordon Ironsides & Fares					
Stallion over 2 years, bred in Canada.					
1st Romeo					
Mare, 4 years or over.					
1st Irenee					
Mare, 3 years.					
1st JardoniereGeo. Lane, Bassano.					
Filly, 2 years.					
1st Komete					
field. 3rd KilmaineWashington Alberta Land Co., Cross-field.					
Filly foaled in 1911.					
1st Flip					
Three (purebred or grade, and age or sex) bred in Alberta, the progeny of one registered sire.					
1st Figaro, Fearless, ForresterG. Lane & Gordon, Ironsides & Fares, Pekisko.					
Champion Percheron Stallion.					
Illico					
Champion Percheron female.					
Irenee					
champion Canadian bred Percheron stallion, any age.					
Figaro					

ANNUAL REPORT, 1912
Champion Canadian bred Percheron filly, 1 year old.
lllicoW. B. Thorne, Aldersyde.
BELGIANS.
Stallion, 4 years or over.
1st Caesar de MachelenThurston Culshaw & Sons, Lougheed. 2nd Robert de LindbuickAlfonse Haazen, Regina. 3rd Moachon de GradoliseAlfonse Haazen, Regina.
Stallion, 3 years.
1st Borege
Belgian mare, 4 years or over.
1st Suzanne de Holder Alfonse Haazen, Regina. 2nd Julie de Luluing Alfonse Haazen, Regina. 3rd Rosia Alfonse Haazen, Regina.
Mare, 2 years.
1st Bertha Salmon Alfonse Haazen, Regina.
Champion Belgian stallion.
Caesar de MachelenThurston Culshaw & Sons, Lougheed.
Champion Belgian female, any age.
Suzanne de Holder Alfonse Haazen, Reglna.
SUFFOLK PUNCH.
Stallion, 4 years or over.
1st Morston Gay MonarchArchie Jaques, Alix. 2nd Morston SamsonBaker & Hunt, Fort Saskatchewan. 3rd Sproughton MarquisF. J. Hartell, Cheadle. 4th Sudbourne MinstrelBaker & Hunt, Fort Saskatchewan.
Stallion, 3 years.
1st Trimley PrinceBaker & Hunt, Fort Saskatchewan.
Stallion, 2 years.
1st Alberta RobinArchie Jaques, Alix.
Mare, 4 years or over.
1st Sudbourne Queen of Spades. Baker & Hunt, Fort Saskatchewan.

Champion Suffolk stallion, any age.

Morston Gay Monarch.......Archle Jacques, Allx.
Reserve: Trimley Prince......Baker & Hunt, Fort Saskatchewan.

Champion Suffolk female, any age.

Sudbourne Queen of Spades.....Baker & Hunt.

#### HEAVY GRADE FOALS.

Grade foals of either sex, foaled in 1911, sired by a registered heavy draft stallion.

1st Bay, Filly ...... E. D. Adams, Calgary.
2nd Dan ..... D. Thorburn, De Wlnton.

Heavy 4 horse team, Clydesdale, Shires, purebred or their grades or crosses, each horse to weigh 1300 lbs. and over.

Team in harness only, each horse to weigh 1500 lbs. or over.

1st Frank and Tom ... ... Jas. & Duncan Clark, Crowfoot.
2nd Bill and Dick ... ... John Clark, Jr., Gleichen.
3rd ... ... ... The Pacific Cartage Co.
4th Bell and Jennie ... ... Malcolm McConnell, Calgary.

Team in harness, each horse to weigh under 1500 lbs. but over 1300.

1st Princess MacQueen and May
MacQueen.....J. & D. Clark, Crowfoot.
2nd ......The Pacific Cartage Co., Calgary.
3rd Iron Duchess & Dolly Acme.John Clark, Jr., Gleichen.
4th Pat and Mike.......D. Thorburn, De Winton.

Draught mare or gelding, 1500 lbs. or over.

1stFrankJ. & D. Clark, Crowfoot.2ndBillJohn Clark, Jr., Gleichen.3rdSweet BarlaeBryce Wright, De Winton.

Draught mare or gelding under 1500 lbs. but not less than 1300.

1stIron DuchessJohn Clark, Jr., Gleichen.2ndPrincess MacQueenJ. & D. Clark, Crowfoot.3rdThe Pacific Cartage Co., Calgary.

Pair of grade horses, mares or geldings, 4 years old and not more than 7.

1st Bill and Dick.....John Clark, Jr., Gleichen.

Heavy draught grade team to be shown in harness only.

1st Frank and Tom......J. & D. Clark, Crow oot.
2nd Bill and Dlck.....John Clark, Jr., Gleichen.
3rd Bay Geldings.....The Pacific Cartage Co., Calgary.

# Heavy Draught grade mare or gelding.

1st	FrankJ. & D. Clark, Crowfe	oot.
2nd	TomJ. & D. Clark, Crowfo	ot.
3rd	Bay Gelding The Pacific Cartage	Co.

# Mare or gelding over 15.1 hands.

1st	Dan MathewsGeo.	Т Наад	Calgary
	Brown MackNatio		
	Topsy		
	Royal Scion		

# Mare or gelding 15.1 hands or under.

1st	Neda	.Dr. Sisley, Calgary.
2nd	Lady Jane	.Edwin Auld & Son, Edmonton.
3rd	Laura Lobasti	F. W. Ings, Nanton.
4th	Dime	.Chas. Riddock, Calgary.

# Pair of trotting mares or geldings, 3 years old or over.

1st	Winona Wiggin	s & JackI. G. Ruttle & Co., Calgary.
2nd	Brown Mack &	Dan Mathews National Land Co., Calgary.
3rd	Ethel Fames &	Rythm Edwin Auld & Son, Edmonton.
	~ . ~ .	

4th Countess Peter and Mate.....John Daly, Granum.

# Single trotting mare or gelding, 3 years old and over.

1st	NedaDr. Sisley, Calgary.
2nd	Lady JaneEdwin Auld & Son, Edmonton.
3rd	Dime
4th	The KidL. A. Scott, Calgary.

## Single trotting, mare or gelding, 3 years old and over.

1st	Dan MathewsGeo. T. Haag, Calgary.
2 <b>nd</b>	Brown MackNational Land Co., Calgary.
	GeorgeJ. F. Ruttle, Calgary.
4th	JimMalcolm McConnel, Calgary.

# Pair of pacing mares or geldings, 3 years old and over.

1st	Lamona an	d Elsie	I. G.	Ruttle,	Calgary.
2nd	Bess M. an	d Kid	. J. E.	Moffatt,	Claresholm.
3rd	Minnie H.	and Mate	A. E	. Hunter	. Claresholm.

# Single pacing mare or gelding, 3 years or over.

1st	LamonaI.	G. Ruttle, Calgary.
	Topsy M	
3rd	Dolly Keswick	E. Gigot, High River.

# Team of drivers, mares or geldings.

1st	Bess M. and	KidJ.	E.	Moffatt,	Claresholm.
2nd	Minnie H. an	d MateA.	E.	Hunter,	Claresholm.

## Single driver, mare or gelding.

1st	Countess Peter	John Daly, Granum.
2nd	Laura Lobasti	F. W. Ings, Nanton.
3rd	Bess M	J. E. Moffatt, Claresholm.

## CARRIAGE, COACH AND HACKNEY HORSES.

Pair	of	Mares	or	geldings	over	14.2	but	not	exceeding	15.1
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1st King Storm & Lord Tuck...F. C. Lowes, Calgary.
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2nd Going Some and So Am I...F. C. Lowes, Calgary. 3rd Glenbow and Glenarrow.....C. R. de la Vergne, Glenbow.

## Pair of mares or geldings over 15.1.

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1st Koh-i-noor and Durbar......F. C. Lowes, Calgary.
2nd Lou and Bill. ...... J. W. McElroy, Calgary.
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# Mare or gelding over 14.2 hands and not exceeding 15.1.

1st	King	Storm		<b>F</b> .	C.	Lowes,	Caigary.

# Mare or gelding over 15.1 but not over 15.3.

10+	Lady Tuck	E C	Lower	Calgary.
ısı	Lady Iuck	 r . O.	LIU W CB,	Caigary.
9 m d	Wohingor	E C	T.OWOG	Calgary

2nd Koh-i-noorF. C. Lowes, Calgary.3rd Lady Primrose. Crist Bros., Calgary.4th Lady Grosvenor. Adams & de Roaldes, Calgary.

# Mare or gelding over 15.3.

1st	Durbar	F. (	C.	Lowes,	Calgary.

2nd Cromwell......F. C. Lowes, Calgary.

3rd Bili ... ... Adams & de Roaldes, Caigary.
4th The Mallard ... R. W. Trotter, Glenbow.

## Mare or gelding, over 15.1 hands.

1 et	Koh-i-noor		 .F.	C.	Lowes.	Calgary.	

4th Lou.....J. W. McElroy, Calgary.

# Mare or gelding, 15.1 hands or under.

1stKing StormF. C. Lowes, Caigary.2ndGoing Some.F. C. Lowes, Calgary.3rdBetaRobt. Blyth, Medicine Hat.4thRed FoxH. T. Sheffield, Calgary.

## Mare or gelding 14.3 and not exceeding 15.2.

1st So Am I. F. C. Lowes, Calgary.
2nd King Storm F. C. Lowes, Calgary.
3rd Lou. J. W. McEiroy, Calgary.
4th Beta. Robt. Blyth, Medicine Hat.

# High Stepper, mare or gelding.

1stLady TuckF. C. Lowes, Calgary.2ndDurbarF. C. Lowes, Caigary.3rdGoing SomeF. C. Lowes, Calgary.

4th Lady Grosvenor......Adams & de Roaides, Calgary.

ANNUAL REPORT, 1912	2
Pair of High Steppers, marcs or geldings, 14.2 and over.	
1st Koh-i-noor and DurbarF. C. Lowes, Calgary. 2nd Going Some and So Am IF. C. Lowes, Calgary. 3rd Lord Tuck and King Storm.F. C. Lowes, Calgary. 4th Lou and BillJ. W. McElroy, Calgary.	
Team of drivers, mares or geldings, residents of cities barred.	
1st Lou and BillJ. W. McElroy, Calgary. 2nd Geraldine and Red WingG. E. Goddard, Cochrane. 3rd Rob and RoyJ. H. Clark, Glenbow.	
Single driver, mare or gelding, residents of cities barred.	
1st Lou	
PONIES IN HARNESS.	
Pony, mare or gelding, 14.2 hands, but over 13.2.	
1stSprayO. E. Brown, Calgary.2ndGingerRussell H. Turner, Calgary.3rdModestyM. J. Carr, Calgary.4thSatanW. J. Nolan, Calgary.	
Pony, mare or gelding, other than Shetland.	
1st Kit Cex.Edwin Auld & Son, Edmonton.2nd Ladysmith.Dawson Turner, Calgary.3rd Bonnie.A. McWillians, Calgary.	
Pair of Ponies, mares or geldings, 14.2 and under, but over 13.5	2.
1st Sam and SatanW. J. Nolan, Calgary.	
Pair of Shetland Ponics, stallions, mares or geldings.	
1st Buster and Sis	
TANDEMS, FOUR-IN-HAND AND COMBINATION CLASSES.	
Tandems, mares or geldings, 14.2 hands and over.	
1st Going Some and So Am IF. C. Lowes, Calgary. 2nd Lord Tuck and King StormF. C. Lowes, Calgary.	
Tandems, mares or geldings, 15.1 hands or over.	
1st Koh-i-noor F. C. Lowes, Calgary. 2nd	
Four-in-hand, 15 hands and over.	

1st ......I. G. Ruttle, Calgary.

# Combination Pony, 14.2 and under.

, , , , , , , , , , , , , , , , , , ,
1st Spray O. E. Brown, Calgary. 2nd Ginger R. H. Turner, Calgary. 3rd Jackie Malcolm Millar, Millarville. 4th Modesty M. J. Carr, Calgary.
Combination horse, mare or gelding, 15.1 and under, but over 14.2.
1st So Am I
Combination horse, mare or gelding, over 15.1.
1st Katy Did. F. C. Lowes, Calgary. 2nd Cadet. F. C. Lowes, Calgary. 3rd Poppy. G. E. Goddard, Cochrane. 4th Daphne G. E. Goddard, Cochrane.
SPECIALS FOR BOYS AND GIRLS.
Saddle pony, 14.2 hands and under, but over 13.2.
1st
Saddle pony, other than Shetland, 13.2 or under.
1st Miss Margaret McDonald, Cochrane. 2nd H. McC. Williams, Calgary. 3rd Dawson Turner, Calgary. 4th Miss Margaret McKay, Calgary.
Pony other than Shetland, 14.2 or under.
1st Edwin Auld & Sons, Edmonton, 2nd Russel H. Turner, Calgary. 3rd Malcolm T. Millar, Millarville. 4th Margaret McDonald, Cochrane.
Shetland pony to be ridden by a boy or girl under 15 years.
1st
Shetland pony to be driven by boy or girl under 15 years.
1st

## SADDLE CLASSES.

Filly or gelding, 2 years, suitable for saddle purposes.
1st Wild Rose
Filly or gelding, 1 year, suitable for saddle purposes.
1st Corona
Saddle horse, 14.2 hands or over.
1st Plume
Mare or gelding under 15.2 hands but over 14.2.
1st Tobie
Mare or gelding, 15.2 hands and over, 4 years and over.
1st Please
Mare or gelding over 15.1 hands.
1st Katy Did. F. C. Lowes, Calgary. 2nd Why Not. Adams & de Roaldes, Calgary. 3rd Cadet. F. C. Lowes, Calgary. 4th Poppy G. E. Goddard, Cochrane.
Mare or gelding, 14.2 hands and over but not exceeding 15.1.
1st Game Cock
Park hack, mare or gelding, exceeding 14.2.
1st Katy Did. F. C. Lowes, Calgary. 2nd Cadet. F. C. Lowes, Calgary. 3rd Mytea D. V. Sanders, Cochrane. 4th Glen Arrow C. R. de la Vergne, Glenbow.
Ladies' saddle horse, mare or gelding, 15.1 hands and under.
1st Game Cock

Ladies'	Saddle	Horse,	mare	or	gelding,	over	15.1	hands.
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1st	Katy DidF. C. Lowes, Calgary.	
2nd	Sailor Geo. Roels, Calgary.	
3rd	Please	
4th	Why Not Adams & de Roaldes, Cal	gary.

# Military Remount, mare or gelding.

1st	Mira
2nd	StarR. Young, Springbank.
3rd	Johnnie David Simpson, Elbow River.

# Light weight Polo Pony or pony suitable for polo.

1st	Valley KingMurray Hendrie, High River.
2nd	BeautyK. J. Snowden, Pekisko.
3rd	First PrincipleO. E. Brown, Calgary.
4th	Tom TitO. Critchley, Cochrane.

# Heavy weight polo pony.

1st	SparksEdi	mund Thomas, Calgary.
2nd	EagleFra	nk McHugh, Calgary.
3rd	Tony	N. Shepard, High River.
4th	Grev Dawn	Critchley, Cochrane,

# Grand Champion saddle horse.

Katy Did	F.	C.	Lowes	&	Co.,	Calgary.
Reserve: Game Cock	₹.	Vo	n Stral	len	dorf	Millarville.

## HUNTERS AND JUMPERS.

# Hunter, mare or gelding, to be ridden over 4 jumps.

1st	Sioux	Calgary.
2nd	Sailor Geo. Roels, Calgary.	
3rd	PleaseGeo. Roels, Calgary.	
4th	Rainbow	

# Hunter, mare or gelding, 14.2 hands and under.

		LassF. C. Lowes & Co.
2nd	Cantata.	
3rd	Modesty.	M. J. Carr, Calgary.
4th	Marksma	n Murray Hendrie, High River.

# Hunter, mare or gelding, over 14.2.

1st	SailorGeo. Roels, Calgary.
	Tobie
	PaddyF. C. Lowes & Co., Calgary.
4th	Please

# High Jump, mare or gelding, ladies to ride.

1st	Smokey	D. P. McDonald, Cochrane.
	Please	Geo. Roels, Calgary,
2nd	Cione	Adama & do Roaldes Calgary

$High\ Jump$ ,	mare or	gelding,	14.2	hands	and	under.
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1st	Calgary Lass	R. Von	Strallendorf,	Millarville.
	MarksmanM			
3rd	CantataR	. Von	Strallendorf,	Millarville.

# High Jump, mare or gelding, over 14.2 hands.

1st	Smokey	.D.	P.	Mcl	Donal	d, Coch	rane.
2nd	Sioux	. Ad	lam	s &	de F	toaldes,	Calgary.
3rd	Paddy	F.	$\mathbf{C}$ .	Low	es &	Co.	

# Okotoks Hunter Trophy.

1st	SiouxAdams & de Roaldes, Calgary.
2nd	DodgerGeo. Roels, Calgary.
3rd	ZinoA. McPherson, Cochrane.
4th	Robin HoodMrs. C. Gardner, Springbank,

# Special for hunting pairs.

1st	Nantucket & Royal AnjouCount	B. de	Charnace,	Calgary.
$\mathbf{g}_{\mathbf{n}}$	SailorGeo. I	Roels,	Calgary.	
3rd		& de	Roaldes, C	algary.
4th	Zino and Joe	McPh	ierson. Ćod	hrane

# Champion Hunter or Jumper.

Please	Geo.	Roels,	Calgary.	
Reserve: Sioux	. Adar	ns & d	e Roaldes.	Calgary.

# Hunter, mare or gelding, 15 hands or over, 4 years or over. Light weight.

1st	Why	Not	Ada	ms	& de	Roa	ldes,	Calgary.
2nd	Lady	Beaverdam	.R. '	Von	Strall	lend	orf, N	Tillarville.
3rd	Grey	Cloud	. Mur	ray	Hend	rie,	High	River.

# Heavy weight.

1st	PleaseGeo.	Roels,	Calgary.	
2nd	Sailor	Roels,	Calgary.	
3rd	TobieAdar	ns & 0	le Roaldes,	Calgary.

# Hunter, mare or gelding, 4 years or over, 15 hands or over.

2nd 3rd	Please

# Special Challenge Cup. Best performance over 4 jumps.

1st	Sioux	Adams	& de	Roaldes,	Calgary
2nd	Sailor	Geo. 1	Roels.	Calgary.	

# Champion Hunter.

Please	Geo.	Roels,	Calgary.	
Reserve: Why Not	Ada	ms & d	e Roaldes.	Calgary.

	Mare or gelding shown to express or delivery wagon.
1st 2nd 3rd	P. Burns & Co. Carlyle Dairy Co. P. Burns & Co.
	Mare or gelding shown to a single lorrie or cart.
1st 2nd	
H	eavy team as used by wholesaler, retailer or manufacturer.
1st 2nd	P. Burns & Co. Imperial Oil Co.
Li	ght team as used by wholesaler, retailer or manufacturer.
1st 2nd 3rd	Calgary City Delivery. Ontario Laundry. P. Burns & Co.
	Heavy team as used by cartage company.
1st 2nd 3rd 4th	
	Single delive <b>ry</b> .
1st	Jos. Fisher, Millarville.
	Livery Exhibit.
1st	I. G. Ruttle, & Co., Calgary.
Pa	ir of mares or geldings to be shown to appropriate vehicle.
1st	I. G. Ruttle, Calgary.
1st	Mare or gelding, to be shown to appropriate vehicle
Ma	ere or gelding, 14.2 hands or over, to be shown under saddle.
1st	I. G. Ruttle, & Co., Calgary.

This report would not be complete without the kindest reference and expression of appreciation of the assistance given the show and the general work of the association by the press of western Canada. The amount of prizes paid and the general expenses of the show take practically all of the revenue, and advertising appropriations are consequently small, and the co-operation extended by the agricultural press and the newspapers generally in western Canada is all the more appreciated.

The Departments of Agriculture of the Dominion of Canada and of Alberta have eo-operated in every possible way towards the success of the work of the association, and the citizens of Calgary also aided materially through generous contributions to the expenses of the show.

Respectfully submitted,

E. L. RICHARDSON, Secretary-Treasurer and Managing Director.

#### APPENDIX B.

#### ALBERTA CATTLE BREEDERS' ASSOCIATION.

#### THIRTEENTH ANNUAL REPORT.

Hon. Duncan Marshall,

Minister of Agriculture.

Sir,—I have the honour to submit herewith the thirteenth annual report of the Alberta Cattle Breeders' Association for the year 1912-13.

The annual meeting of the Alberta Cattle Breeders' Association was held in the offices at Victoria Park, Calgary, on Monday April 7th, 1913.

#### MINUTES OF ANNUAL MEETING.

Mr. J. L. Walters, president, in the chair.

The minutes of the last annual meeting were adopted as read.

Mr. Walters gave a short address in which he mentioned particularly the bright outlook for the cattle industry in Alberta, the present prices of beef with no immediate prospects of any reduction in the price which was an encouragement to those who have stayed in the cattle business during the times when it was not very remunerative. He confidently expected that the cattle industry in Alberta would continue to increase in importance each year. The secretary then read the annual report and the financial statement.

Moved by Mr. Wright, seconded by Mr. Turner— That the reports be adopted as read. (Carried.) Moved by Mr. Turner, seconded by Mr. Mace—

That Mr. Walters be appointed to represent the Alberta Cattle Breeders' Association at a joint meeting of the representatives of live stock associations of the four western provinces, to be held at Calgary on Thursday next. (Carried.)

Considerable discussion then arose in connection with the inspection of tuberculosis of cattle coming into the province. The live stock commissioners, Tolmie and McDonald from Victoria, explained the system which had been adopted in connection with inspection of purebred cattle coming into British Columbia. They explained that before purebred animals were permitted to enter British Columbia they have to pass a test for tuberculosis. The meeting was of the opinion that as the tuberculosis test was enforced for animals entering British Columbia, the tendency would he to make Alberta and the other western provinces a dumping ground for cattle affected with tuberculosis, which could not be dumped into British Columbia.

After careful consideration it was moved by Mr. Turner, seconded by Mr. Laycock—

That the Dominion government be petitioned to put in force the same regulations for Alberta, as are in force for British Columbia in respect to inspection for tuberculosis of all purebred animals coming into Alberta, and that the inspection shall apply to grade dairy cattle being imported into the province as well as purebreds. (Carried.)

Moved by Mr. Fletcher, seconded by Mr. Tees-

That the Alberta government be asked to enforce the present brand inspection act, especially with regard to the inspection of hides. (Carried.)

The election of officers was then proceeded with and resulted as follows:

OFFICERS OF THE ALBERTA CATTLE BREEDERS' ASSOCIATION, 1913.

#### BREED DIRECTORS.

Shorthorns	A. E. Shuttleworth, Blackle.
Herefords	P. F. Huntley, Onion Lake.
Aherdeen Angus	Lew Hutchinson, Duhamel.
Galloway	W. E. Tees, Lacombe,
Holsteins	Thos. Laycock, Calgary.
Ayrshires	A. H. Trimble, Red Deer.
Jerseys	C. A. J. Sharman, Red Deer.

#### GENERAL DIRECTORS.

S. M. Mace, Pekisko.	Thos. Baird, Red Willow.
A. H. Bolton, Gladys.	Prof. W. J. Elliott, Olds.
Jas. Wilson, Innisfail.	·

#### EX-OFFICIO DIRECTORS.

Hon. Duncan Marshall, Minister of Agriculture, Edmonton. John Bright, Live Stock Commissioner, Ottawa.

#### HONORARY DIRECTORS.

W. F. Stevens, Live Stock Commissioner, Edmonton. H. S. Arkell, Assistant to Live Stock Commissioner, Ottawa.

Dr. J. C. Rutherford, Supt. of Animal Husbandry, C. P. R., Calgary.

Moved by Mr. Turner, seconded by Mr. Tees-

That Mr. J. B. Sutherland, chartered accountant, Calgary, be appointed official auditor of the Alberta Cattle Breeders' Association. (Carried.)

Moved hy Mr. Wright, seconded by Mr. Turner-

That the secretary be instructed to communicate with the different railroads endeavouring to have a more satisfactory cattle guard constructed over their lines. (Carried.)

The meeting then adjourned.

After the meeting the Shorthorn breeders were asked by Mr. S. R. English to stay and consider correspondence in connection with the difficulty he had with the Dominion Shorthorn Breeders' Association over the registration of some animals. Mr. English pointed out that as a result of his being expelled from the Dominion Shorthorn Breeders' Association, and afterwards reinstated when the Shorthorn Breeders' Association found a mistake had been made, that he had suffered severe loss, and had gone out of the purebred cattle husiness. After considering the question it was moved by Mr. Turner, and seconded by Mr. Wilson—

That the Dominion Shorthern Breeders' Association be asked to make public apology in connection with this matter. (Carried.)

#### ANNUAL REPORT OF THE SECRETARY.

Gentlemen,—I present herewith the thirteenth annual report of the Alberta Cattle Breeders' Association covering the year 1912-13.

The Alberta Cattle Breeders' Association have now held sixteen auction sales, have sold 2210 head of cattle for the sum of \$201,617.50, the general average obtained being \$95.15.

The sale held at Calgary on April 10th, and at Lacombe on May 29th were the most successful yet held by the association. The average obtained for 97 head sold at the Calgary sale was \$112.11, and for 37 head sold at Lacombe, 140.00. These are the highest averages ever obtained at an association sale. The highest average received at previous sales was \$108.00 which was received in 1906.

At the Calgary sale 58 Shorthorns averaged \$122.95, 24 Herefords \$112.08, 1 Galloway sold for \$115.00, 9 Aherdeen Angus averaged \$78.80, and 5 Holsteins averaged \$65.00. At the Lacombe sale 4 Aherdeen Angus averaged \$152.50, 2 Holsteins averaged \$140.00, 6 Herefords averaged \$140.83, 25 Shorthorns averaged \$143.44. P. A. Switzer had the honour of selling the highest priced bull at the Lacombe sale, which was a Shorthorn and sold for \$225.00. Dayid

Sinclair of Innisfail sold the highest priced bull at the Calgary sale, also a Shorthorn for \$363.00. The quality of stock offered was better than at previous sales, and the indications are that the success of future sales Is assured. The demand for cattle was probably never as good as at the present time. Stock breeders who bave continued in the business while others were disposing of their stock, will now reap their reward. It is fortunate that the general tendency in Alberta is towards increased live stock production. Every possible means is being directed towards this end, and the price of grain compared with the price of beef during the year has presented a very practical lesson to those who are devoting their attention entirely to grain growing. The province of Alberta will no doubt be one of the richest and most prosperous in the Dominion of Canada when the large percentage of the grain growers have realized the necessity of stock raising, and have put their views into practice.

The awards at the show at Calgary were placed by G. H. Hutton of Lacombe, and at Lacombe by Thos. Laycock of Calgary. Mr. S. W. Palsley of Blackfalds, Alta., again acted as auctioneer at both of the auction sales of 1912-13 in his usual efficient manner.

Following is a comparative statement of the sales beld by the associations:

#### HIGHEST PRICES REALIZED.

1901	\$250.00	Shorthorn bull sold by P. Talbot & Son, Lacombe.
1902	290.00	Sborthorn bull sold by John Ramsay, Priddis.
1903	255.00	Hereford bull sold by O. Palmer, Lacombe.
1904	285.00	Shorthorn bull sold by Hon. W. Beresford, Calgary.
1905	225.00	Shorthorn bull sold by D. Sinclair, Innisfail.
1906	365.00	Shorthorn bull sold by A. F. McGill, Lacombe.
1907	170.00	Shorthorn bull sold by James Sharp, Lacombe.
1908	400.00	Shorthorn bull sold by John A. Turner, Calgary.
1909	180.00	Shorthorn bull sold by Bryce Wright, de Winton, (Calgary.)
	180.00	Shorthorn bull sold by Wm. Sharp, Lacombe.
	150.00	Sborthorn bull sold by Thos, Talbot, Lacombe.
	150.00	Aberdeen Angus sold by R. E. Johnston, Lacombe, (Lacombe.)
	150.60	Aberdeen Angus sold by J. H. Fay, Blackfalds.
1910	205.00	Shorthorn bull sold by Jas. A. Hogge, Okotoks, (Calgary.)
1910	200.00	Shorthorn bull sold by Wm. Sharpe, Lacombe, (Lacombe.)
1911	185.00	
1911	165.00	
1912	363.00	Shorthorn bull sold by David Sinclair, Innisfail, (Calgary.)
1912	235.00	
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The following is a list of prize winners at the purebred cattle show, 1912:

## SHORTHORN BULLS.

## Three years and over.

1st	Brilliant CharacterA. F. McGill, Lacombe.
2nd	Radiance, 71702J. Shields.
3rd	Forest Boy, 77155Roberts Bros.

30 months and under 3 years.

1st Justus, 81175.... P. A. Switzer, Lacombe.

Two years and under 30 months.

1st Maple Leaf Tom, 85141....P. A. Switzer, Lacombe.

## 18 months and under 2 years.

1st	Silver King, 82850	. David Sinclair, Innisfail.
2nd	Crimson Count, 84477	.A. F. McGill, Lacombe.
3rd	Crimson Dude, 84476	.A. F. McGill, Lacombe.
4th	Dugald Brawith, 84862	.J. L. Walters, Clive.
$5\mathbf{t}\mathrm{h}$	Red Cloud, 84935	.A. W. Latimer, Bowden.

# Yearlings and under 18 months.

1st	Romeo, 84937	.A. W. Latimer, Bowden.
2nd	Count Lavendar	Bryce Wright De Winton.
3rd	Moonstone, 84708	.Bryce Wright, De Winton.
4th	Diamond Prince	Bryce Wright, De Winton.
	King Bruce, 82204	

Best Shorthorn bull, any age, bred in Alberta.

Best Shorthorn, any age.

Silver King, 82850.................David Sinclair, Innisfail.

#### HEREFORDS.

Thirty months and under 3 years.

1st	Hamburg, 9450Thos	s. Croxford, Airdrie.
2nd	Ike, 10103Thos	s. Baird, Red Willow,
3rd	Archie, 10015	letcher, Mound.

Two years and under 30 months.

1st Drumsticks, 11162.......B. F. Huntley, Onion Lake. 2nd Harold, 11232......A. Fletcher, Mound.

Eighteen months and under 2 years.

1st	Hastings 2nd, 10994	S.	M. Mace,	Pekisko.
2nd	Philip, 11234	A.	Fletcher,	Mound.
3rd	Luther, 11231	A.	Fletcher,	Mound.
4th	Burdens Pride, 11271	$\dots$ Th	os. Baird,	Red Willow.

## Yearling and under 18 months.

1st	Beau Royal, 11224S.	Μ.	Mace, Pekisko.
2nd	Drummer, 11160P.	F.	Huntley, Onion Lake.
3rd	St. Valentine, 11225J.	Η.	O'Neill, Crossfield.

Best Hereford bull, any age, bred in Alberta.

Beau Royal, 11224.....S. M Mace, Pekisko.

Best Hereford bull, any age.

Beau Royal, 11224.....S. M. Mace, Pekisko.

#### ABERDEEN ANGUS.

## Three years and over.

Two years and under three years.

1st Wildwood Gaylawn 9th, 4354.G. G. Melson, Olds. 2nd Casa Loma Justin, 5554.....F. R. Cathro, Calgary.

## Under two years.

1st Wildwood Gaylawn 13th, 5334.Geo. G. Melson, Olds.
2nd Casa Loma Erroll 4th, 4786..F, R. Cathro, Calgary.
3rd Casa Loma Merroll, 5553.....F. R. Cathro, Calgary.
4tb Lal Tulwar, 5149...........W. T. G. McClure, Innisfail.

Best Aberdeen Angus bull, any age, bred in Alberta.

Wildwood Gaylawn 9th, 4354.....Geo. G. Melson, Olds.

Best Aberdeen Angus bull, any age.

Wildwood Gaylawn 9th, 4354.....Geo. G. Melson, Olds.

#### GALLOWAYS.

Two years and under three years.

Best Galloway bull, any age, bred in Alberta.

Best Galloway bull, any age.

#### HOLSTEINS.

# Two years and under.

1st Prince Clotbilde, 11643......C. P. R. Demonstration Farm, W. J. Elliott, Strathmore.

2nd Sir Wagler de Kol, 11642....W. J. Elliott, Strathmore. 3rd Countess Claras Sarcastic 11641.W. J. Elliott, Strathmore. 4tb Sarcastic Lu, 11640......W. J. Elliott, Strathmore.

Best Holstein bull, any age.

## JERSEYS.

## Two years and under.

1st Albertas Fox, 1067.......G. S. Rosamond, Innisfail. 2nd Innisfails Lad, 2297......G. S. Rosamond, Innisfail.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1912.

#### Income 1912.

Alberta Government Grant	\$1200.00
Canadian Bank of Commerce	25.00
Transportation Fees	666.88
Commissions on Sales and Loading Charges	383.39
Entry Fees	296.00
Membership Fees	83.00
Advertising	40.00
Sundries	12.15
Total Receipts 1912	

Desirable and Objection Observan

#### EXPENDITURE 1912.

Freight and Shipping Charges Secretary, Auctioneer, and Office Expense Printing and Advertising Prizes and Medals General Grounds Expense	\$ 704.89 808.82 360.92 253.00 184.24	
Total Expenditure 1912		\$2311.87
Excess of Receipts over Expenditures 1912	\$ 651.57 394.55	\$394.55
Overdraft December 31, 1912		\$257.02
SALES ACCOUNT 1912.		
DR.		
Proceeds of Sale at Calgary	\$10972.00 5181.00	
CR.		<b>\$</b> 16153.00
Paid to Contributors to Calgary Sale \$10693.11 Commissions and Charges deducted 278.89		
Paid to Contributors to L2combe Sale \$5076.50 Commissions and Charges deducted 104.50	\$10972.00	
	5181.00	
	<del></del>	<b>\$</b> 16153.00

Calgary, 10th March, 1913. Audited and found correct,

(Signed) James B. Sutherland, Chartered Accountant,

Auditor.

I hand you berewith the financial statement of the Alberta Cattle Breeders' Association for the year 1912-13. I am pleased to be able to report a smaller deficit this year. The overdraft at the end of 1911 was \$651.57, the present overdraft being \$257.02 which is a reduction of \$394.55.

present overdraft being \$257.02, which is a reduction of \$394.55.

Your executive committee made application to the Hon. Duncan Marshall, minister of agriculture, for an increase in the provincial government grant from \$1200 to \$1500, which increase was concurred in by Mr. Marshall, and it is hoped that in a couple of years it will be possible to clear off the deficit entirely.

#### LIVE STOCK SHIPPING REGULATIONS.

A committee composed of representatives from various provinces in Canada in connection with the proposed special live stock contract, have not yet, I understand, been able to come to satisfactory arrangements with the railway companies, and the question will no doubt be submitted to the railway commission. Your committee which was appointed to revise the proposed live stock shipping regulations, reports progress. Meetings have been beld and each time the regulations are brought to a more equitable basis as between the live stock shippers and the railroads. Another meeting will be held in the near future to finally complete the regulations and to have them put in force.

## RANCH COMMISSION.

During the year the Dominion Ranch Commission was appointed. This commission held meetings throughout Alberta, and the undersigned as secre-

tary of the live stock associations, assisted in securing representative meetings. It is hoped that the recommendations of the commission will add much to the permanency of the cattle industry.

#### BETTER FREIGHT RATES.

Your executive committee acting with the executive committees of the Alberta Horse, Sheep and Swine Breeders' Associations met representatives of the C. P. R. with a view to having the privilege of completing a carload shipment of purebred cattle en route, or taking out part of a carload en route, by paying \$3 for the first stop and \$2 for subsequent stops. The representations of the associations were agreed to by the C. P. R. authorities, and are now in force under Tariff No. W 2676. This, of course, refers to purebreds only. A person shipping a carload of purebred cattle from, say, Calgary to Macleod, may unload an animal at High River by paying \$3 above the carload charges, and another one at Claresholm by paying \$2 extra. The same applies if the person is completing the loading of a car.

The undersigned recently attended a meeting of live stock associations' representatives at Winnipeg where a strong application was made to the express companies for a half rate for purebred stock. The representatives were well received, and we hope to be able to announce in a short time a

reduction in the rates on purebred live stock sent by express.

You will at this meeting be asked to appoint a representative of this association to attend a joint meeting of similar representatives from the horse, cattle, sheep and swine breeders' associations of Manitoba, Saskatchewan, Alberta and British Columbia, which will meet in Calgary on Friday of this week to discuss the question of western representation on the boards of breed societies having their head offices in eastern Canada, also matters connected with the international records, and other questions which the western live stock associations are of the opinion should be taken up in order to properly look after the western Canadian live stock interests.

The Dominion and Alberta Departments of Agriculture have continued their kind co-operation financially and otherwise, towards the work of the association during the year, and I wish to express on behalf of the association the appreciation of the members for the increase which has been promised by the Honourable Duncan Marshall to the provincial government grant to the Cattle Breeders' Association.

Respectfully submitted,

E. L. RICHARDSON. Secretary-Treasurer and Managing Director.

## APPENDIX C.

## ALBERTA SWINE BREEDERS' ASSOCIATION.

## NINTH ANNUAL REPORT.

Hon. Duncan Marshall,

Minister of Agriculture.

Sir,-I have the honour of presenting herewith the ninth annual report of the Alberta Swine Breeders' Association for the year 1911-12.

The annual meeting was held during the fat stock show at Calgary, November 28th, 1912.

#### MINUTES OF THE ANNUAL MEETING.

The annual meeting of the Alberta Swine Breeders' Association was held in the offices, Calgary, Thursday, November 28th, 1912.

The president, Mr. Lew Hutchinson, in the chair.

There were forty-two present.

Mr. W. F. Stevens, Live Stock Commissioner for Alberta, gave a most interesting address on swine raising. Mr. R. S. Hamer, B.S.A., of the live

stock branch, Department of Agriculture, Ottawa, gave an address on the general outlook of live stock supply in Canada, which was most instructive.

The minutes of the last meeting were adopted as read. The secretary then presented the annual report and financial statement.

Moved by Mr. Oscar Miller, seconded by Mr. Downie-

That the reports be adopted as read.

The election of officers resulted as follows:

#### BREED DIRECTORS.

Yorkshires... H. W. Watkin, Olds.
Berkshires... Fred Downie, Carstairs.
Duroc Jerseys. Oscar Miller, Cheadle.
Tamworths... Mr. Clements, Manager, Alberta
Government Demonstration Farm, Olds.
Poland Chinas. L. O. Norton, Raymond.

#### GENERAL DIRECTORS.

J. H. Elliott		 Irma.
J. Maurer	 	.Clive.
Prof. W. J. Elliott.	 	 Strathmore.
H. H. Jenkins	 	Pincher Creek.
Frank Downie	 	 Carstairs.

Moved by Mr. Miller, seconded by Mr. Tees-

That J. B. Sutherland, chartered accountant, be appointed auditor for the ensulng year.

The meeting then adjourned.

#### ANNUAL REPORT OF THE SECRETARY.

Gentlemen,—I have pleasure in presenting herewith the ninth annual report of the Alberta Swine Breeders' Association, being for the year 1911-12.

## ALBERTA PROVINCIAL FAT STOCK SHOW.

Owing to the change in the date of holding the show, reports covering the 1911 and 1912 Fat Stock Shows are presented herewith.

A comparison of the numbers of entries for the past six years is as follows:

1907	17 entries.	
1908		
1909	57 entries and 2 carloads.	
1910		
1911		
1912	74 entries and 2 carloads.	

The list of prize winners at the two shows above mentioned is given below:

#### PRIZE WINNERS OF 1911.

#### YORKSHIRES.

Purebred barrow or sow, 6 months and under 12 months.

1st	H.	w.	Watkin.												Olds.
2nd	H.	W.	Watkln.		 				 						. Olds.
3rd	W.	E.	Tees		 		 								Lacombe.

## Barrow or sow under 6 months.

1st	H. W.	WatkinOlds.
2nd	W. E.	TeesLacombe.
3rd	H. W.	WatkinOlds.

Champion Yorkshire, any age or sex.
H. W. WatkinOlds.
POLAND CHINAS.
Barrow or sow under 6 months.
1st Chestermere Stock Farm.
GRADES.
Barrow or sow, 6 months or under 12 months.
1st Thos. CroxfordAirdrie2nd C. MeersCalgary3rd A. J. B. DewdneyCalgary
Barrow or sow under 6 months.
1stW. E. Tees.Lacombe.2ndW. E. Tees.Lacombe.3rdW. E. Tees.Lacombe.
Barrow or sow, 6 months and under 12 months.
1st       H. W. Watkin       Olds.         2nd       H. W. Watkin       Olds.         3rd       H. W. Watkin       Olds.
Barrow or cow under 6 months.
1st       H. W. Watkin.       Olds.         2nd       H. W. Watkin.       Olds.         3rd       H. W. Watkin.       Olds.
Best pen of three bacon hogs.
H. W. WatkinOlds.
Carload of not less than 20 head, purebred or grade.
W. E. TeesLacombe.
Dressed carcases.
1stThos. Croxford.Airdrie.2ndW. E. Tees.Lacombe.3rdW. E. Tees.Lacombe.
Purebred or grade dressed carcases.
1stH. W. Watkin.Olds.2ndThos. Croxford.Airdrie.3rdH. W. Watkin.Olds.

BERKSHIRES.
Barrow or sow, 6 months and under 12 months.
1st T. A. Cox. Brantford, Ont. 2nd E. E. Baynton 3rd E. E. Baynton
Barrow or sow under 6 months.
1st T. A. Cox
Champion, any age or sex.
T A Cox Brantford, Ont.
YORKSHIRES.
Barrow or sow, 6 months and under 12 months.
1st H. W. Watkin Olds. 2nd H. W. Watkin Olds. 2rd E. E. Baynton
Barrow or sow under 6 months.
1st H. W. Watkin       Olds.         2nd E. E. Baynton       Brantford, Ont.
Champion, any age or sex.
H. W. WatkinOlds.
POLAND CHINAS.
Barrow or sow under 6 months.
1st J. A. McCullough
Champion, any age or sex.
J. A. McCullough
GRADES.
Barrow or sow, 6 months and under 12 months.
1st Thos. Croxford.         Airdrie.           2nd E. E. Baynton.         Lacombe.           3rd W. E. Tees.         Lacombe.
Barrow or sow under 6 months.
1st W. E. Tees.       Lacombe.         2nd H. W. Watkin       Olds.         3rd H W. Watkin       Olds.

#### GRADES, BACON TYPE.

Barrow	or	sow.	6	months	and	under	12	months.
--------	----	------	---	--------	-----	-------	----	---------

1st	E. E.	Baynton
2nd	W. E.	TeesLacombe
3rd	W. E.	TeesLacombe

#### Barrow or sow under 6 months.

1st	H. W.	WatkinOlds.	
2nd	H. W.	WatkinOlds.	
3rd	T. A.	CoxBrantford, Or	at.

## SPECIAL OFFERED BY SWIFT CANADIAN CO.

Best pen of 3 bacon hogs, weight of each animal to range from 175 to 220 pounds.

1st	H.	W.	Watkin.	 Olds.
TOL	51.	w.	watkin.	 

## CARLOAD LOTS.

1st W. E	Tees.	Lacombbe.
----------	-------	-----------

Grand Championship, best bacon hog, any age, purebred or grade.

## DRESSED CARCASSES.

# Purebred or grade. Medium thick.

1st	W. E.	TeesLacombbe.
		McGill
3rd	W. E.	TeesLacombe.

# Purebred or grade, bacon type.

1st	E. E.	Baynton	
2nd	W. E.	Tees	Lacombe.
2 nd	H W	Watkin	Olde

Arrangements were made with Messrs. P. Burns & Co, to slaughter the entries as in past years, and also to purchase the animals entered in the dressed carcase competitions on the following basis:

## PRICES PAID.

# AT THE 1911 SHOW-DRESSED HOGS.

First Prize	.16	cents.
Second Prize	. 15	cents.
Balance	13	cents.

## AT THE 1912 SHOW.

First Prize	15 cents.	
Second Prize	13 cents.	
Balance	1146 cents	a

Following is a list of the winners with the weights and amounts received for their stock:

1911.
PUREBRED OR GRADE, MEDIUM THICK.

Name of Owner.	Live Weight	Dressed Weight	Per Cent.	Price	Value Realized
Thos. Croxford	345	315	91.30	13	\$39.00
Thos. Croxford	315	293	93.01	13	36.92
Thos. Croxford (1st)	265	235	88.67	16	37.44
W. E. Tees	275	228	82.90	13	29.51
W. E. Tees (2nd)	240	200	83.33	15	30.00
W. E. Tees (3rd)	255	208	81.56	13	27.04
PUREBR	ED OR GR	ADE, BACO	N TYPE.		
Thos. Croxford	140	122	87.14	13	\$14.30
Thos. Croxford (2nd)	135	118	87.40	15	15.75
Thos. Croxford	140	115	82.14	13	14.30
W. E. Tees	240	200	83.33	13	26.00
W. E. Tees	255	220	86.27	13	27.56
W. E. Tees	265	205	77.35	13	26.65
H. W. Watkin (3rd)	205	185	90.24	13	22.23
H. W. Watkin	185	170	91.89	13	20.28
H. W. Watkin (1st)	200	180	90.00	16	26.72

SWINE—1912.

PUREBRED OR GRADE, MEDIUM THICK.

Name of Owner.	Live Weight	Dressed Weight	Shrunk Weight	Per Cent.	Price	Value Realized
W. H. Croxford	110	97	94	88.18	111/2	\$10.81
Thos, Croxford	190	162	156	85.26	111/2	17.94
W. E. Tees	245	210	202	85.71	11½	23.23
W. E. Tees (3rd).	265	240	232	90.56	111/2	26.68
W. E. Tees (1st).	235	208	203	88.51	15	30.45
E. E. Baynton	210	175	168	83.33	111/2	19.32
H. W. Watkin	180	159	153	88.33	11½	17.59
H. W. Watkin	150	130	124	86.66	111/2	14.26
H. W. Watkin	175	156	150	89.14	11½	17.25
A. F. McGill (2nd)	225	200	194	88.88	13	25.22
	PUREBE	ED OR GRA	ADE, BACO	N TYPE.		
W. H. Croxford	100	90	85	90.00	111/2	\$9.77
W. H. Croxford	100	87	83	87.00	111/2	9.54
Thos. Croxford	185	155	150	83.78	111/2	17.25
Thos. Croxford	175	157	151	89.71	111/2	17.36
W. E. Tees (2nd).	245	198	191	80.81	13	24.83
W. E. Tees	225	187	180	83.11	111/2	20.70
W. E. Tees	210	174	167	82.85	111/2	19.20
E. E. Baynton (1st)	250	205	198	82.00	15	29.70
H. W. Watkin	230	196	189	85.21	$11\frac{1}{2}$	21.73
H. W. Watkin	235	204	192	86.80	111/2	22.08
H. W. Watkin	230	195	189	84.78	111/2	21.73
T. A. Cox	160	137	132	85.62	$11\frac{1}{2}$	15.18
T. A. Cox	210	178	171	84.76	11½	19.66

#### CHANGE IN THE DATE OF THE FAT STOCK SHOW.

The decision of the directors of the associations to hold the fat stock show in the fall instead of in the spring, will, we hope, result in a more rapld growth of the show. It has been difficult in the past to secure the interest at the spring show which should be taken in the fat stock show. Holding the show in the early winter will make it possible to have some interesting lectures using live specimens for demonstration, and also lectures on the carcasses after they have been returned from the slaughter house.

A feature which I feel sure will be a benefit to swine breeders throughout the province, and which can be advantageously conducted at the time of the fat stock show is an auction sale of swine. It is hoped that such a sale will be added to the fat stock show next fall.

Below is given the financial statement for the year 1911, which has been duly audited by Mr. F. R. Exham, official auditor, showing that there was a balance of \$214.76 on hand at the end of December, 1911.

FINANCIAL STATEMENT OF THE ALBERTA SWINE BREEDERS' ASSOCIATION.

# Receipts, 1911.

Balance on hand Dec. 31, 1910	\$109.62 200.00
Registration Fees	103.40
Membership Fees	101.00
	<b>\$</b> 51 <b>4</b> .02
Expenditure.	
Postage, Stationery and Office expenses	<b>\$113.94</b>
Secretary's Salary	100.00
Freight Charges	45.80
Printing and Advertising	28.50
Prizes	11.02
Balance on hand, 31st December, 1911	214.76
	\$514.02

Examined and found correct. March 7th, 1912.

(Signed) F. R. EXHAM, Auditor.

I shall be pleased to assist in the interchange of purebred live stock if those wishing to purchase and those having stock for sale will advise me from time to time.

Before closing I wish to express appreciation of the assistance always so freely given by the Alberta and Dominion Departments of Agriculture.

Respectively submitted,

E. L. RICHARDSON, Secretary-Treasurer and Managing Director.

#### APPENDIX D.

## ALBERTA SHEEP BREEDERS' ASSOCIATION.

#### TENTH ANNUAL REPORT.

Hon. Duncan Marshall,

Minister of Agriculture.

Sir,-I have the honour of presenting herewith the tenth annual report of the Alberta Sheep Breeders' Association for the year 1911-12.

The annual meeting was held during the Fat Stock Show at Calgary, November 28th, 1912.

#### MINUTES OF THE ANNUAL MEETING.

The Alberta Sheep Breeders' Association annual meeting was held in the offices, Calgary, Thursday, November 28th, 1912.

There were about forty present.

The following addresses were delivered:

"Sell your Hay and Grain to the Live Stock," by Prof. W. J. Elliott, Supt.
of Agriculture, Department of Natural Resources, C. P. R.

"Sheep Raising," by R. S. Hamer, B.S.A., Live Stock Branch, Department

of Agriculture, Ottawa.

'Profit and Benefit from a Small Flock of Sheep on a Mixed Farm," by John A. Turner of the Balgreggan Stock Farm.

The addresses were listened to with the greatest interest, and the discussion which followed each address assisted in bringing out the local problems.

The minutes of the last meeting were adopted as read. The secretary then read the annual report and presented the financial statement.

Moved by Mr. Knights, seconded by Mr. Downie-

That the reports be adopted.

#### ELECTION OF OFFICERS.

The election of officers then resulted as follows:

#### DIRECTORS.

Shropshires......John A. Turner, Caigary. Merinos..... E. Harker, Cardston.

## GENERAL DIRECTORS.

H. A. Malcolm.....lnnisfail. Fred Downie......Carstairs. Walter Sporle, Jr..... Edmonton.

Notice of motion was given to change the constitution so that the election of breed directors will be discontinued, and that ten general directors be appointed by the annual meeting, who with the president, vice-presidents and secretary-treasurer shall form the directorate of the Alberta Sheep Breeders' Association.

The meeting then adjourned.

#### ANNUAL REPORT OF THE SECRETARY.

Gentlemen,-I submit herewith the tenth annual report of the Alberta Sheep Breeders' Association being for the year 1911-1912.

#### ALBERTA PROVINCIAL FAT STOCK SHOW.

I am very pleased to be able to report the decision of the executive committee of the fat stock show to change the date of the show from the spring to an early winter show. Heretofore it has been difficult to develop the fat stock show with the usual live stock association events in the spring, owing to the horse show and cattle show and sale taking up so much of the time and interest of the breeders. It is confidently expected that when the show is held in the early winter it will be possible to rapidly develop the fat stock show. There will be time for addresses dealing with various live stock subjects, and for meetings where problems facing the live stock breeders and feeders can be discussed. There will also be time for dressed carcases to be displayed and addresses delivered with the carcases present as illustrations. The undersigned looks forward with a very great deal of pleasure to the building up of the fat stock show. I feel sure that those of us present today will be surprised at the strides to be made in the development of the fat stock show in the course of the next four or five years.

Owing to the short notice given of the change in the fat stock show dates, we do not anticipate a large entry at the first show, but we confidently look forward to a splendid increase in the entries next year.

A comparison of the number of entries for the past six years is as follows:

1907	entries.
190819	entries.
1909	entries and one carload.
1910	entries and two carloads.
191137	entries and one carload.
1912	entries and three carloads.

I have pleasure in attaching hereto a list of the prize winners in the various classes at the fat stock show held in the spring of 1911 and also in the spring of 1912:

PRIZE WINNERS-FAT STOCK SHOW, 1911.

#### SHEEP.

## Purebred Shropshires.

Class 12. Ewe or wether sheep born previous to 1910.

1st	H. W.	WatkinOlds.
2nd	H. W.	WatkinOlds.
3rd	Walter	Sporle, JrEdmonton.

# Ewe or wether lamb of 1910.

1st	John A.	Turner	Calgary.
2nd	John A.	Turner	Calgary.
3rd	H. W. V	Vatkin	Olds.

## Champion Shropshire, any age or sex.

Jonn	1 A.	Turner	.Calgar <b>y</b>
301111	ı A.	i uinei	Caigai

Ewe or wether sheep born previous to 1910.

1st H. W. Watkin.....Olds.

#### OXFORDS.

## Ewe or wether born previous to 1910.

1st H. W. Watkin.....Olds.

# Ewe or wether lamb of 1910.

Ewe or wether lamb of 1910.	
1stBryce WrightDe Winton2ndBryce WrightDe Winton3rdBryce WrightDe Winton	
Champion Oxford, any age or sex.	
Bryce Wright	
SUFFOLKS.	
Ewe or wether sheep born previous to 1910.	
1st H. W. WatkinOlds.	
Ewe or wether lamb of 1910.	
1st H. W. WatkinOlds.	
Champion Suffolk, any age or sex.	
H. W. WatkinOlds.	
southdowns.	
Ewe or wether sheep born previous to 1910.	
1st H. W. WatkinOlds.	
Ewe or wether lamb of 1910.	
1st H. W. WatkinOlds.	
Champion Southdown, any age or sex.	
H. W. WatkinOlds.	
ANY OTHER PUREBREDS.	
Ewe or wether sheep born previous to 1910.	
1st H. W. Watkin (Cotswold ewe)	
Ewe or wether lamb of 1910.	
1st H. W. Watkin (Hampshire ewe)Olds.	
Champion, any age or sex.	
H. W. Watkin (Hampshire ewe)Olds.	
GRADES OR CROSSES.	
Ewe or wether sheep born previous to 1910.	
1st       W. & T. Stuart       .Priddis.         2nd       H. W. Watkin       .Olds.         3rd       H. W. Watkin       .Olds.	

# Ewe or wether lamb of 1910.

• •
1st W. & T. Stuart.       Priddis.         2nd H. W. Watkin.       Olds.         3rd H. W. Watkin.       Olds.
Carload of not less than 20 head, purebred or grade.
1st H. W. WatkinOlds.
DRESSED CARCASES.
Purebred or grade, ewe or wether, born previous to 1910.
1st       H. W. Watkin       Olds.         2nd       H. W. Watkin       Olds.         3rd       H. W. Watkin       Olds.
Purebred or grade lamb of 1910.
1st       H. W. Watkin       Olds.         2nd       H. W. Watkin       Olds.         3rd       H. W. Watkin       Olds.
GRAND CHAMPIONSHIP.
Best sheep, any age, purebred or grade.
Bryce Wright (Oxford ewe)De Winton,
PRIZE WINNERS IN SHEEP CLASSES, 1912.
SHROPSHIRES.
Ewe or wether sheep born previous to 1911.
1st C. E. Baynton
Ewe or wether lamb of 1911.
1st T. A. Cox
Champion Shropshire, any age or sex.
C. E. Baynton
OXFORDS.
Ewe or wether sheep born previous to 1911.
1st C. E. Baynton
Champion Oxford, any age or sex.
C. E. Baynton

# SUFFOLKS.

Ewe or wether sheep born previous to 1911.

Due of weller shoop out proceeds to 1011.
1st H. P. Jaques
Ewe or wether lamb of 1911.
1st H. P. Jaques
Champion Suffolk, any age or sex.
H. P. Jaques, (Yearling)
SOUTHDOWNS.
Ewe or wether lamb of 1911.
1st T. A. Cox       Brantford, Ont.         2nd T. A. Cox       Brantford, Ont.         3rd H. W. Watkin       Olds.
Champion Southdown, any age or sex.
T. A. CoxBrantford, Ont.
ANY OTHER PUREBREDS.
Ewe or wether sheep born previous to 1911.
1st C. E. Baynton, (Hampshire)
Champion.
C. E. Baynton
GRADES OR CROSSES.
Ewe or wether, shearling and over, born previous to 1911.
1st C. E. Baynton
Ewe or wether lamb of 1911.
1st C. E. Baynton         2nd C. E. Baynton           2nd T. A. Cox         Brantford, Ont, Ont.           4th T. A. Cox         Brantford, Ont.
Carload of not less than 20 head, purebred or grade, any age.
1st H. W. Watkin Olds. 2nd H. W. Watkin Olds.
DRESSED CARCASES.
Purebred or grade, ewe or mutton, born previous to 1911.
1st H. W. Watkin

# Purebred or grade lamb of 1911.

1st	T. A. Cox Brantford,	Ont.
2nd	T. A. CoxBrantford,	Ont.
3rd	H. W. WatkinOlds.	

### GRAND CHAMPIONSHIP.

# Best sheep, any age, purebred or grade.

C. E. Baynton, (Grade Shropshire Lamb) ......

Arrangements were made with Messrs. P. Burns & Co. to slaughter the entries as usual, and to purchase the animals entered in the dressed carcase competitions on the following basis:

#### PRICES PAID:

## AT THE 1911 SHOW—DRESSED SHEEP.

First Prize	 19 cents.
Second Prize	 $\dots 17$ cents.
Balance	 131/2 cents.

# AT THE 1912 SHOW—DRESSED SHEEP.

First Prize	17 cents.
Second Prize	
Balance	

Following is a list of the winners with the weights and amounts received for their stock.

# PUREBRED OR GRADE EWE.

Name of Owner.	Live Weight	Dressed Weight	Yield Per cent	Shrunk Weight	Price	Value Realized	
H. W. Watkin (2) H. W. Watkin (3)	1	66	55.00 55.71	66 78	17	\$11.22 10.53	
H. W. Watkin (1)	120	70	58.33	70	19	13.30	
PUREBRED OR GRADE LAMB OF 1910.							
Walter Sporle Jr	125	65	52.00	65	131/2	\$8.77	
Walter Sporle Jr	. 125	67	53.60	67	131/2	9.04	
H. W. Watkin (2)	75	36	48.00	36	17	6.12	
H. W. Watkin (3)	95	50	52.63	50	131/2	6.75	
H. W. Watkin (1)	90	45	50.00	45	19	8.55	

sнеер—1912.

## PUREBRED OR GRADE LAMB OF 1911.

Name of Owner.	Live Weight	Dressed Weight	Shrunk Weight	Rate Per cent.	Price	Value Realized
C. E. Baynton	125	72	72	57.60	13	\$9.36
H. W. Watkin	105	55	54	52.38	13	7.02
H. W. Watkin	85	50	49	38.82	13	6.37
H. W. Watkin (3)	110	63	62	57.27	13	8.06
T. A. Cox (1)	105	65	63	61.90	17	10.71
T. A. Cox (2)	110	65	64	59.09	15	9.60
1. 11. Con (2)	110	, 00	1 01	1 00.00	10	, 0.00
•						
	PUREBREL	OR GRAD	E EWE OR	WETHER.		
II D Tagues	185	116	110	69.70	1.0	1 214 50
H. P. Jaques	200	111	$\begin{array}{c c} & 112 \\ & 110 \end{array}$	62.70	13	\$14.56
H. P. Jaques				55.50	13	14.30
H. P. Jaques	190	115	112	60.52	13	14.56
C. E. Baynton	215	139	137	64.65	13	17.81
C. E. Baynton (3)	150	86	85	57.33	13	11.05
C. E. Baynton (2)	155	93	92	60.00	15	13.80
H. W. Watkin	180	111	110	61.66	17	18.70
H. W. Watkin	150	84	82	56.00	13	10.66
H. W. Watkin	150	86	84	57.33	13	10.92
						1

The association has assisted as far as possible in the interchange of stock. If those having stock for sale will forward a list of same to the offices we shall be glad to send the information out to those making enquiries for stock.

Below is a copy of the financial statement for the year 1911, which has been duly audited by Mr. F. R. Exham, official auditor. The statement shows that there was a balance on hand at the end of 1911 of \$206.73.

## FINANCIAL STATEMENT FOR 1911.

# Receipts.

Balance on hand, 31st December, 1910	\$113.91 400.00 23.00
	\$536.91
Expenditures.	
Postage, stationery and office expense  Secretary's salary  Expense in connection meetings of Dominion Sheep Commission	\$100.63 100.00
In Alberta Printing and advertising	65.00 $28.50$
Prizes	22.35
Freight charges	13.70
Ralance on hand December 31, 1911	206.73
	\$536.91

Examined and found correct.

(Signed) F. R. EXHAM,

Auditor.

Those interested in sheep ranching in Alberta will follow with considerable interest the sittings of the commission recently appointed by the Minister of the Interior to enquire into a report upon the advisability of setting apart certain tracts of land for the encouragement of ranching and grazing in

southern Alberta and Saskatchewan. It is hoped that at the conclusion of these sittings at the various points in the west, the commission will be able to make acceptable recommendations which will tend to the permanency of the ranching industry of the west without interfering with the development of mixed or general farming. The opinion seems general that there are certain areas within the province which are better adapted to ranching than farming. If the ranch commission are able to establish ranching on a fairly permanent basis on these areas, they will undoubtedly have contributed in no small degree to the development of western Canada.

In closing I wish to express appreciation for the co-operation and assistance so very kindly given by the Alberta and Dominion Departments of Agriculture in connection with the live stock association work.

Respectfully submitted,

E. L. RICHARDSON, Secretary-Treasurer and Managing Director.

#### APPENDIX E.

## ALBERTA PROVINCIAL FAT STOCK SHOW.

#### NINTH ANNUAL REPORT.

Hon. Duncan Marshall,

Minister of Agriculture.

Sir,—I beg to hand you herewith the ninth annual report of the Alberta Provincial Fat Stock Show which was held at Calgary, November 26th to 29th 1912.

29th, 1912.

The fat stock show of November, 1912, was the second show held in the same year owing to the decision of the executive committee to hold the fat stock shows in the future in the fall instead of in the spring. The result was very gratifying, and we have every reason to believe that the next show will be very much increased in entries over the show of 1912. It was not expected that the first show held in the fall would show much of an increase in entries as it takes some little time to make a change of date known throughout the province, and get breeders interested sufficiently in advance to prepare exhibits:

A comparative list of the exhibits in the various classes for the past three years will be of interest:

#### FAT STOCK SHOW ENTRIES.

#### Cattle. 1910 1911 1912 1912 (Fall Show) 3 Shorthorns 15 13 1 Herefords ..... Galloways ..... 3 2 1 Aberdeen Angus ..... 1 3 2 4 19 16 20 Grade Steers ... Grade Cows and heifers 6 8 Carloads ..... 4 8 4 Dressed Carcases . . . 21 2212 51

	Sheep.			
Shropsbires	10	8	9	8
Oxford Downs	4	4	1	12
Leicesters	11			3
Southdowns	4	2	3	5
Suffolks	$1\hat{2}$		9	4
Cotswolds		$egin{smallmatrix} 2 \ 2 \end{matrix}$		
Hampshires	· · · · · · · · · · · · · · · · · · ·		1	
Grades	$1\overline{7}$		10	10
Carloads	3	1	3	2
	5 5	9	15	16
Dressed Carcases	ð			
	67	36	51	60
	Swine			
Berkshires	4		6	8
Yorkshires	9	9	10	
Tamworths				10
Poland Chinas		1	2	
Duroc Jerseys				7
Grades	16	27	25	9
Dressed Carcases	7	16	24	9
Diesseu Carcases				
	36	53	67	43

There is no question but that the quality of the stock is improving at every show. Some grand individuals were shown in the various classes, and the first prize carload of steers which were exhibited by Mr. Downie, also won first honours at the Toronto Fat Stock Show a couple of weeks after being shown at Calgary in spite of the long railway journey. I have pleasure in handing you herewith the following photos:
First prize carload of steers exhibited by Simon Downie & Sons of Car-

stairs.

Second prize carload of steers exhibited by W. E. Tees of Lacombe.

Champion steer exhibited by E. S. McLean of Stettler, also a general view of the horse show building in which the Fat Stock Show was held.

I also hand you herewith a copy of the financial statement for the year 1912 and a synopsis of the various addresses which were delivered at the show:

FINANCIAL STATEMENT OF ALBERTA PROVINCIAL FAT STOCK SHOW, 1912.

## Receipts.

\$1791.66
•
386.50
210.00
112.38
0500 54
2500.54
2136.80
\$4637.34

#### Disbursements.

Prizes paid at Spring Show		<b>\$</b> 3217.00
Grounds Expenses and Wages	705.81	\$5211.UU
Fall Show	105.36	600.45
Postage, stationery, office expense and extra help Secretary's Salary	$\begin{array}{c} 219.61 \\ 100.00 \end{array}$	
Printing and Advertising		319.61 $228.83$ $208.47$
Total Expenditure 1912 Overdraft 31st December, 1911		4574.36 62.98
		\$4637.34

Audited and found correct.

JAMES B. SUTHERLAND, Chartered Accountant,

Auditor.

March 10th, 1913.

The Fat Stock Show was officially opened by yourself, Sir, in your official capacity as Minister of Agriculture. You expressed your pleasure at heing privileged to again open the fat stock show, and congratulated the officers on their decision to change the date of the show from a spring to a fall show. While it was not expected that the first show under the new date would be as large as would he the case if the date had not heen changed, you were of the opinion that the next show on this date would be very considerably larger. Owing to the change in the date your department were willing to increase the amount of the grant, and to co-operate with the associations in every possible way to make the show a henefit to the live stock interests of the province. You further explained that you intended to make the operations of the Alherta Demonstration Farms as great a help to the live stock breeders as possible. Splendid herds were now established on the several demonstration farms, and at two or three of the farms a number of steers had heen fed the previous winter, and the data kept would no doubt be of value to feeders generally. It was the intention to continue the experiment on a larger basis this winter, and with a view to encouraging the managers of the various demonstration farms in the work of taking care of the stock, and to add further interest to the fat stock show at Calgary, you intended to pick out a couple of steers at each of the demonstration farms in the spring and have them shown at the next fat stock show in November. A special challenge cup or trophy would be offered for the hest two steers exhibited hy the demonstration farms, although the steers would not be entered for competition in the regular classes of the show.

In conclusion you declared the fat stock show officially opened, and wished the work of its various officials every success.

You were pleased to state that you were most favourably impressed with the splendid quality of the stock on exhibition, and the excellent accommodation which had been provided for the show.

ADDRESS DELIVERED BY J. G. RUTHERFORD, C.M.G., SUPERINTENDENT OF ANIMAL HUSBANDRY, CANADIAN PACIFIC RAILWAY COMPANY, NATURAL RESOURCES DEPARTMENT.

The Canadian west is coming into its own and will, without doubt and that in the very near future, far surpass in point of progress and prosperity even the most sanguine predictions of the many optimistic prophets who have, from time to time foretold its destinles.

It is however, not exempt from the ailments and limitations which are apt to affect young countries as well as young individuals during the period of growth.

Some of these such as the reckless exploitation of land values and espec ially the subdivision evil, the general tendency to discount the future and the lack of adequate transportation facilities to provide for the abnormal and unprecedented grain production due to the comparative ease of prairie cultivation and the application to agriculture of modern methods of mechanical traction, although at present sufficiently serious, will very shortly be matters of history and reminiscence. As time goes on and the country becomes settled up, its people will settle down to the business of living and making a living in the only way in which, at least in an inland community such as this, it is possible to do so, namely through the development of its own natural wealth. When the last subdivision now laid out has been sold off or is once more under the plough, these prairie provinces, sobered and steadied by age and experience, will continue to prosper, not through the adventitious aid of imported or borrowed capital but from the returns reasonably and ligitimately derived from their own internal resources. On this head there is no room for argument or difference of opinion. It goes without saying therefore that all sober-minded and thoughtful men who are here with the intention of remaining and whose future interests depend on the solid and substantial growth and development of the country are, whether they themselves have as yet fully realized it or not, deeply concerned in the proper conservation of those resources from which alone they can look for either comfort or wealth.

Leaving aside, as of relatively minor or rather subsidiary importance the mineral riehes of the west, its timber and its waterpowers, let us see what is going on in the matter of safeguarding and preservation for ourselves and our children of our one great and, if properly hushanded, perpetual source of revenue, the fertility of the soil. Land is land the world over and although there are in these provinces some very considerable areas of remarkably fertile soil, there are other and much more extensive areas in which this condition eannot truthfully be said to exist. Even the richest lands eventually become exhausted unless care is taken to maintain their fertility by the adoption of sane methods of cultivation while in the case of those of medium or inferior strength, the period of profitable continuous cropping is, of course, much more limited. The wonderful tales of the undiminished The wonderful tales of the undiminished fertility of western soils after producing successive crops of wheat for decades are in most cases incapable of proof although it may be admitted that in some few localities the soil has shown itself able to withstand wonderfully well the unfair treatment accorded to it. Exceptions, bowever, only prove the rule and the history of wheat cultivation on this continent furnishes the best possible argument against the short sighted methods of so called farming now too generally in vogue in the Canadian west.

Within the memory of men still living the centre of the wheat growing industry was in western New York. Moving slowly through Ohio, Indiana, Illinois and Iowa, it came north to Minnesota and Dakota until today it rests in western Canada.

Although along the whole course of this progress there were and are still individual farmers who, as a result of using intelligent methods, were able to continue the growing of wheat at a profit, the fact that such cases are far from numerous is clearly shown by the official reports of the average yield per acre in these once great producing communities. That the progressive yearly decrease in yield, which has been observable in the wheat Iands of America, is due to faulty methods of husbandry, or, to put it plainly, bad farming and not to any extrinsic cause or causes, is very clearly shown by reference to the statistical crop returns furnished by the government of Great Britain and Ireland. These indicate that on lands which have been steadily and continuously farmed for periods in some cases running into centuries, the average yield of wheat is today from thirty to forty bushels per acre. In one well authenticated case on a very old farm in Scotland the yield per acre was last year fifty-nine hushels.

These facts speak for themselves and although they are capable of substantiation by figures obtainable much nearer home, it is scarcely necessary to run the risk of arousing local feeling by their introduction here.

In applying to our own case the moral derivable from the conditions observed in other countries, it may be well to bear in mind the possibility of the presentation of apparently convincing contrary arguments based on more or less authentic instances of successful and profitable land robbery continued with apparent immunity over comparatively long periods. The possibility of sucb cases, when the soil is of very exceptional richness, has been already admitted while in regard to any others which may be cited, it may be confidently taken for granted that careful investigation will reveal

the existence of methods of culture more or less intentionally or accidentally scientific by which the process of soil exhaustion is being, to at least some extent, retarded. These limitations which are, after all, of but little real importance and which will be further discussed at a future time, having been recognized, we need not hesitate in making the somewhat sweeping statement tbat unless the farmers of western Canada, as a body, decide and that at an early date, to modify their present methods by the adoption of mixed husbandry and especially by the extensive keeping of livestock, they as well as those interdependent with them on the basic industry of agriculture or in other words, practically the wbole community, will inevitably experience a very serious and more or less prolonged period of financial depression. It is true that so long as the price of grain is maintained at or near its present high level and the seasons are reasonably propitious, the crops obtained from the new lands still to be exploited will probably avert anything like a general monetary stringency but this circumstance will not convey much comfort to the individual farmer whose land is then no longer capable of remunerative production and who finds himself compelled either to abandon the struggle or to undertake the slow and painful task of restoring to the soil those precious elements which might so easily bave been conserved by the timely adoption of common sense methods.

Those, and their number is by no means small, who honestly consider such views as those here adduced, extreme and unwarranted, will do well to visit, or in some cases at least, revisit those districts even in our own west, which once famous for their wheat production, are now struggling for recognition as being reasonably well adapted for general agriculture. A few days spent in an investigation of this sort, especially in the company of some one famillar with the local history of the district and the record of occupancy of each individual quarter section, will convince the most sceptical that the foundation for permanent comfort and prosperity on the prairie farm can, as a rule, be well and truly laid only by the adoption during the earlier years of tenure of sane and intelligent methods of soil conservation. If, however, further proof is needed let the unconvinced grain grower visit those districts, in which, for one reason or another, as for instance supposed liability to summer frosts when that problem was less well understood than it now is, or settlement far in advance of some long projected but unconstructed railway, the holders of land were compelled or deemed it more profitable to go in for mixed farming. He will there find the best possible evidences of permanent agricultural success and prosperity. The fear of frost has gone or the railroad has come but although paying crops of grain are now produced, they furnish only a part of the annual income of the settler who, still on his original holding with his comfortable buildings about him, is a farmer in fact as well as in name. The conditions which at the beginning he regarded as drawbacks and disadvantages have, by forcing his activities into many different channels, not only made him practically independent of any special market condition but placed bim in a position to live, if he wishes to do so, largely within his own resources.

A comparison between a man so situated and one who devotes his attention exclusively to the growing of grain is all in favour of the former. He enjoys to the full the advantage which the real farmer has over practically every one else in being able to secure for himself and his family, at first cost, many of the most expensive necessaries of life, and some of its greatest luxuries. He has, as a rule, good stock about him in which he is interested and which keeps him in touch with the livestock world and all that this implies. Everyone familiar with the farming industry and those engaged in it is well aware that, speaking generally, the good stockman is a man of advanced thought and progressive ideas, and that he reads more and is infinitely better informed and more interested in agricultural matters than his neighbour whose sole study is the grain market and who for nearly half the year has nothing to occupy his time and attention. An even greater contrast exists between the boys on a well conducted modern general farm and those whose only interest in the business is divided between wheat and weeds on the one hand and machinery on the other.

The livestock world is full of interest for any properly constituted youtn and the sons of our breeders and feeders are, as a body, by all odds the brightest and best representatives of the younger generation of Canadian agriculturists.

In this connection and in order to head off an old and time worn argument, it may be at once admltted that the keeping of livestock implies work and that those, whether men or boys, who are averse to a reasonable amount

of it, had better leave the business alone. Work and drudgery are, however, two entirely different things and the latter is nowadays no more necessary on the modernly equipped and well managed stock farm than anywhere else. As a matter of fact the work of intelligently caring for good animals is one of the most interesting and attractive pursuits in the world as will be readily admitted by anyone who has ever been intelligently engaged in it, whether on his own behalf or not.

I need not at this time dwell at any greater length on the importance of the general adoption in this country of the principles o' sound husbandry,

and particularly of the keeping of livestock.

Knowing as I do that the action of the Canadian Pacific Railway Company in establishing a branch of Animal Husbandry in connection with its Department of Natural Resources has aroused some little interest, and as this is perhaps the most fitting occasion which has yet presented itself for an explanation in this regard, I will with your permission refer to a few of the lines of activity which we propose to follow.

Before doing so however, I would like to be understood that for the present season at least, it is the intention to confine our operations almost entirel yto the irrigation belt, lying east of Calgary. The reasons which led

to the adoption of this temporary limitation are as follows:

First, the need of creating such an organization as will be capable of doing effective work on the extended scale necessary in order to make any definite impression on the enormous area comprised by these western provinces, this organization if it is to do really good work will demand the employment of a considerable staff possessing qualifications for the various lines of work which it is proposed to undertake; men of the stamp required are not very plentiful and in order to avoid disappointment, they must be selected with care and caution.

Second, it is always well to follow the line of least resistance and as the people of Alberta, and particularly those in the distract surrounding Calgary are, for various reasons, already favourably inclined to livestock husbandry, our earlier efforts are likely to be more successful here than elsewhere.

Third, better results are certain to follow the concentration of our energies within a circumscribed area than if these were extended and to some extent dissipated in the attempt to cover the whole of the west. If successful in improving conditions to any considerable extent in a given district, even if not very large, we will have furnished a valuable object lesson.

Having made this explanation, I will endeavour to briefly enumerate a few of the more important features of the campaign which it is proposed to carry

out.

The first of these is the supplying to settlers of livestock of such kinds and in such numbers as are likely to be most profitable and of the greatest assistance to them. This stock will consist very largely of good grade females of the different species, to be sold to the settlers on easy terms and under such conditions as regards maintenance and supervision as will provide reasonable safeguards against avoidable loss.

It is also proposed to encourage the use of pure bred males in every district where these grade females are located. In the case of the smaller animals, males will be sold to the settlers on easy terms, but in the case of bulls, it is the intention of the company to retain ownership of the animals by simply placing them in the hands of responsible men in selected districts, authorized to collect small service fees, in order to recoup them for any

trouble or expense to which they may be put.

I may say that so far as this district is concerned a strong effort will be made to stimulate the production of dual purpose cattle of the dairy Shorthorn type. Bulls of this type will be introduced wherever possible, while as many Shorthorn grade females of milking strain will be distributed as possible. Owing to the difficulty of obtaining these in Canada in any great numbers, it is the intention to also utilize grade Ayrshire cows, which, crossed with the dairy Shorthorn bull, will produce very useful dual purpose cattle.

A considerable number of cows carefully selected in the east, have already been distributed while we have also brought in over forty head of pure bred dairy Shorthorn females, and a number of bulls. The pure bred females and such bulls as may be necessary, are to be used in the formation of pure bred herds in different localities with the view of producing for future use stock of this class at the lowest cost and possibly of better quality than could be

obtained from other sources.

With the object of encouraging the younger generation in the keeping of live stock, we have inaugurated a steer feeding competition, open to sons of

farmers situated on the lands of the company within the Irrigation Belt.

Such of these lads, as on investigation, are found to be reasonably well equipped for the work will be furnished with six or eight steers to be fed during the coming winter. Prizes will be awarded at the Calgary Spring Show to the four lads who succeed in adding most to the weight of the animals during the intervening period.

At the same show it is proposed to offer handsome cash prizes for the best lots of fifteen steers, there being classes, animals three years and over, steers two years and under three, and steers one year and under two.

Prizes will also be given for the best sixty fat wethers and for the best fifty fat hogs, not to exceed two hundred pounds weight, and the best fifty fat chickens.

This last mentioned competition differs from the steer feeding competition above mentioned, in being open to all comers.

I am also arranging for the foundation of an animal rescue mission by negotiating with the larger packers for the purchase from them of such serviceable young females of the different species as may for any reason be found among the stock intended for slaughter.

One result of the continued and widespread world shortage of beef cattle has been the passing in several of the South American Republics of legislation prohiblting slaughter of cows under five years old, while laws of this kind would not be looked upon with favour with our people, I feel it my duty to impress upon every one the necess.ty of discouraging and preventing as far as possible the slaughter of stock of this kind. It is scarcely necessary for me to dwell upon the absurdity and lack of common sense involved in the importation of breeding stock from eastern Canada at great expense, when the train conveying them may between here and Winnipeg cross several trains carrying useful young females to that city for immediate slaughter.

It is also proposed to take up during the coming winter the work of endeavouring to form co-operative circles among farmers for the buying, breeding, handling and above all the selling of live stock. In this work and partly for the sake of example, it is the intention to co-operate with the Dominion and Provincial Departments of Agriculture at the various series of meetings held during the winter months, and I have every reason to hope that we will also have the valuable co-operation and assistance of the United Farmers of Alberta and of the Grain Growers Association.

Every effort will be made to prove by demonstration that mixed farming is highly profitable when carried on under proper and favourable conditions. In this work it is the intention to utilize the various Demonstration Farms now in existence and to be established by the company in different localities; it is also proposed to use the press freely, and to deliver public addresses wherever these may be given with advantage.

Last but not least is the project of providing at different points throughout the west open markets on which the producer of live stock may feel sure of obtaining for what he has to sell a fair and equitable price on a parity with actual values in the markets of the world, subject only to such limitations as are right and proper in view of transportation and other conditions.

There is every reason to believe that in this work it will be possible to secure the hearty co-operation of all the transportation companies operating in these western provinces, and although it may take some little time to place matters on a satisfactory footing, there is good ground for the hope that by the time the local supply again exceeds the local demand, conditions in this regard will be vastly more satisfactory than in the past.

In conclusion I would say that as most of you know, I am not much addicted to boasting even of things accomplished. Most of the features of the programme which I have just outlined are as yet only in their beginnings. I do not wish to be understood as predicting success for them all. It is however better to aim too high than too low, and while there may be disappointments, there will always be the satisfaction which follows earnest endeavour, even if results fall short of expectations.

CARE AND MANAGEMENT OF THE SHEEP STOCK.
(By Mr. John A. Turner of Balgreggan Stock Farm, Calgary.)

In opening his address, Mr. Turner laid great emphasis on the importance of the sheep industry. He said that we have the best sheep country in the world. He then drew attention to the fact that sheep were man's best friend.

They not only feed but also clothe him in the best possible garments. "But," said Mr. Turner, "a man who makes a success of sheep can make a success of any other business."

To succeed with sheep the greatest attention must be given to details not only to feeding but also in general management. Mr. Turner went on to impress his audience with the important part that sheep in conjunction with other live stock played in keeping the boys on the farm. He maintained that districts where live stock prevailed in large numbers were much more progressive than those in which grain growing predominates. This in itself was a splendid argument in favour of mixed farming. In discussing the flock Mr. Turner said that it was the better policy to have a relatively small flock that could be properly looked after rather than to have a large one that received poor attention. He said that too large numbers in the flocks was the worst enemy to sheep husbandry. In selecting a flock it was most important to choose a breed that was adapted to the climate of your country. In this connection Mr. Turner said that the close woolled breeds were more suitable to Alberta than the loose, open woolled breeds. This was on account of the frequent falls of light dry snow; these were not able to penetrate and wet the former nearly so readily as the latter.

The speaker went on to emphasize the importance of a good ram in the flock. He said that it was mighty poor business to economize by saving a few dollars when buying a ram. In a discussion that followed, Mr. Turner said that a young buck could serve 25 ewes and an old one more than this number with good results. It had been said at a meeting of the ranch commission that where sheep pastured no other animal would. On his farm he had run cattle, horses and sheep together, and they all thrived till there was no grass; then only the sheep continued to thrive. This was because they were able to eat the grass closer to the ground. He had also fed his ewes well during the winter on cut green feed and whole oats. Such ewes gave better and stronger lambs than those that were poorly fed. Having fully dealt with the sheep question, Mr. Turner next gave a few general remarks on farm operations. He advised people to sow what they intended for green feed early in April. In following such a plan the crop may be cut before it is frosted and when it is just beginning to turn yellow. This practice enables the farmer to harvest the feed early and clear the land ready for plowing in the fall. "Green feed," says Mr. Turner, "is a very valuable crop when properly used and is not dangerous when fed pregnant animals." By cutting the straw and green sheaves previous to feeding, considerable is gained. His feed is not only cut but is also sprayed with water a day before feeding to moisten and soften it. A little salt used on this cut feed makes it more palatable. In feeding, the great secret is to change feeds frequently or at least have quite a variety. Such a factor determines in no small degree the economy in feeding.

Concerning the marketing question, Mr. Turner believed that it was most essential for every man to have as far as possible a special market for his produce. He quoted as an example of the benefits to be derived from such a market, a case of a young man near Edmonton who was selling mutton to a couple of hotels in that city for 14c per pound.

In order to help the sheep keep down the weeds, and to conserve moisture, Mr. Turner summer fallowed every third year. Five years ago he had sown five acres to al'alfa. Mr. Fairfield's instructions had been followed very closely. The seed was sown in early June on land that had been summerfallowed the previous year. The soil received a small application of inoculated soil that he had procured from the Lethbridge experiment station. Since the alfalfa has been growing on his farm it has been up against some very trying experiences. But in spite of these it keeps on improving each year. The drought does not injure it materially. The sheep clipped it off very short last fall just before the freeze up, but, in spite of adverse circumstances he had inceived a great crop this year. Twelve double loads were taken from the first and nine from the second cuttings.

In answering a number of enquiries concerning green frosted feed causing abortion, Mr. Turner was of the opinion that it was frequently other causes than feed that were responsible for the loss of so many foals. Pink eye that struck pregnant mares invariably caused them to abort. The speaker said that a severe shock or a nervous strain due to other causes sometimes were the unknown cause of such losses.

#### FEEDING STEERS.

(By H. A. Craig, B.S.A., Superintendent Alherta Government Demonstration Farms.)

I am very pleased this afternoon to have the opportunity of placing before you the results which we obtained in feeding steers at the Government Demonstration Farms during the past winter. It is not my purpose to inflict a lengthy address upon you, but rather to give a plain short talk upon different phases of the work. While our results may not have been extraordinary, they were such as satisfy us that the husiness of finishing range steers in an enclosure is a practical one and one which will give fair returns for the money invested if proper methods are adopted.

I am not going to touch upon the place that steer feeding has or should have in the agriculture of this western country. Mr. Hutton, I believe is going to talk upon that feature of the business, and is much better qualified to do this than I am, having had several years experience in feeding. I realize that our experience so far has been limited, having extended only over one year and I am going to give you only the results and observations which are plainly manifest. These observations are taken from the feeding of about 200 steers at three different farms last year with different conditions at each farm and also from the feeding of about 400 steers this winter at four different farms.

I wish to deal with three phases of the work:

- (1) Selection of Steers.
- (2) Feeding and Handling.
- (3) Results Obtained.

There is no doubt that the day you cut your steers for the feed yard is the day you make your money. I realize as well as anyone how difficult it is to secure steers of the right kind. It is quite an easy matter to go out and pick up a couple of hundred steers of all descriptions but our experience has been that there can easily he an actual loss in weight on certain steers after having heen fed on the same ration and under the same conditions as other steers which put on 250 pounds weight in six months. The question naturally comes what kind of steer to feed. 1 am not ahle to give you as full information on this as I would like to but I am going to give you what we have been able to observe.

The steer which anyone will discard of course is the rough, loose, leggy steer without much middle, with the thin long head and horns to match. It is not necessary for me to discuss this animal as there is no one who would feed one of this kind.

The next kind of steer to beware of is the wild one. Do not misunderstand me here. A hunch of steers may be wild, most range steers are wild especially when a man goes around on foot amongst them, but I mean the one steer in the bunch whose eyes will stick out of his head and will gallop off around the bunch like a mad thing as soon as you commence to work in the yard. It is not so much the actual loss in feeding a wild hrute of this kind because he will not gain much, if any, hut he will make the whole bunch restless. Then when you come to deliver your hunch in the spring this steer goes out of the yard with a kick and a hound and away across the prairie looking for something to frighten at and of course the hunch follow with the consequent shrinkage and loss to the feeder. This year we have cut back good steers just hecause they gave evidence of being wild.

The next steer I would watch for, is the diseased one, particularly lump jaw and in cutting a bunch it is easy for one of these to slip through. Other animals will show signs of ill health by their coat and general lack of vigor. It is worth a good deal to have a thrifty looking bunch going in. I do not mean fat but simply in good growing shape. Speaking of general appearance brings me to the point of color. I never thought that color made much difference until lately, but we found that the white cattle in our bunch did not stand the cold as well nor did they put on nearly the gains that the darker colored steers did. Two of them actually failed, weighed less in the spring than in the fall. Another point with respect to color. We found that the Jersey colored steers did not do well, also the sort of dull yellow color or a black with a sunburned hack did not do well. I do not mean that these animals had any Jersey blood in them hut somehow the color indicated a lack of breeding which told when they got into competition with hetter bred steers.

Lastly I would get three year old steers coming four if possible. The younger steers do not stand the cold weather as well, will not stand the heavy

feeding and will not make as heavy gains as will the older steers. Five year old steers made good gains but they are often the rough ones cut back hy the buyer the year before and again they do not grow as much as the four year olds. And hy the way I consider this quite important, the weight the steer will put on by actual growth. We fed some oxen last winter without much success. Fortunately we had only a few. Now from what I have said it might appear that all the cattle we fed could be classed in some one of the above mentioned, but I may say that these formed only a very small proportion as you will see when we come to speak of results.

The kind of animal I would feed. Let me direct your attention to the

The kind of animal I would feed. Let me direct your attention to the steer winning first place in the competition at this show. The thick, broad, low set contented looking type, carrying lots of flesh on top and with plenty of middle, with large heart girth and a broad short head, is the kind that did hest with us. I realize that it is not always possible to get this kind especially

in large bunches.

#### FEEDING AND HANDLING.

The quieter the cattle are to start with the sooner will they commence to put on gains, however when feeding is commenced the cattle soon tame down especially if all strangers are kept out of the yard.

A few words about the actual enclosures. In the first place the cheaper the better, provided it will hold the cattle. Two of our yards are located beside barns which give a certain amount of protection from the winds. On the north and west sides we have an 8 foot close board fence. On this fence we have feeding racks similar to those you see in almost any railway stock yard. They are built of 2x4 scantling placed ahout six inches apart. Our long feed is stacked just outside this fence and is fed over the feuce into the racks. In the centre of the yards we have a long table with 8 inch sides on it for feeding cut feed and chop. I would make this table ahout 3 feet high and about 4 feet wide. It requires ahout 3 feet per steer allowing for steers to feed on hoth sides.

One bunch of steers were fed entirely in the open with a hluff for shelter. In this case we had a "V" shaped rack huilt for feeding the long feed and

used the tables the same as in the enclosure for cut feed and chop.

To one of these lots of cattle we fed cut seed entirely, principally green oats and some wheat with chop in addition. A second hunch was fed all the sheaf oats and wild hay they wanted and cut feed twice a day with chop mixed. The third bunch were fed long feed including sheaf oats and wheat and wild hay, the chop heing fed separately. The results were in favor of the cut green feed and chop mixed. Not much hetter however than feeding the long feed and also cut feed and chop mixed. The steers fed in the open with long feed did not make nearly the gains that the other two did.

One strong point in favour of mixing the chop with the cut feed is that each steer is more likely to get his fair share of the feed. Where the chop is fed alone the bosses get more than is good for them and the shy steers get noue. Where possible it would appear to he advisable to separate the

shy steers and the small steers from the rest.

With respect to the chopping of feed we made some tests. One lot were fed chop that was barely broken or crushed. Another was fed on chop fairly well ground and a third on chop ground pretty fine. Our test of course does not extend over a sufficiently long period to come to a conclusion as to which actually made the most gains but one thing was evident that the steers fed the coarse chop could he fed much more than either of the others without putting them off feed or affecting their bowels. The steers fed the coarse chop were quite easily hrought up to 14 lbs. a day and held there while those fed the fine chop would harely stand 10 pounds a day.

The steers fed in the enclosure were fed the cut feed with chop. I may say that the chop was started at ahout 3 pounds per head per day and brought up to what the cattle would stand. In the case of the coarse chop the limit was about 14 pounds, the medium ground chop ahout the same and the fine ground about 10 lbs. The chop was started on the 1st of January and In ahout two and a half months the cattle were on a full ration. This chop consisted of oats and barley or oats and frozen wheat, % oats in each case. The frozen wheat did not give very good satisfaction. We have no definite figures to show but the cattle did not seem to do as well when the wheat was in the chop. The cattle at all times of course had access to lots of water and salt—a heater belng kept in the water tank.

I would have you hear in mind that our results are taken from only one

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year's experience and while there are certain points which are plainly manifest from our work so far yet there are some points which only more work will clear up.

## RESULTS.

Statement of Steer Feeding at Olds Demonstration Farm.		
Weight of 99 steers weighed out on May 29	Pounds. 142,062	
Weight of 1 steer weighed out on January 17	1,350	
Total weight	143,412 127,540	
Total gain in weight	15,872 1,509 1,275	
By sale of 99 head of cattle May 29 at \$6.65 per 100 lbs. \$10,005.35 By sale of one steer January 18 at \$5.25 per 100 lbs 70.70 By gain in weight of 8 hogs running after steers, \$9.00	234	
per hog		
Total amount realized\$	10,148.05	
To price of 100 steers, 127,540 pounds at 4½ cents 5,739.30 To interest on note, 7 months, at 7 per cent 234.00		
To feed of steers:—       1,456.10         Grain       1,456.10         Wild hay       468.40         Green feed       498.00         Salt       10.00         Labor       700.00         Gasoline used for cutting and grinding feed       30.00		
Total cost of steers\$	9,135.80	
Total net gain	1,012.25	
Average selling price per steer, including profit of \$72.00 made on gain in weight of hogs	\$101.48 57.39	
Gross profit per head	\$44.09	
The Claresholm steers not only cost \$4.80 per hundredweight, but were sold at \$6.60, or five cents below the Olds steers. This reduction in selling price is accounted for by the fact that there was more than one carload, but not enough to make two full cars, consequently the shipping expenses to the purchaser were higher per head. The net gain per head on the Claresholm steers is rather low, but the price paid—\$4.80 per hundredweight—makes that difference. At the time it was determined to feed these steers at Claresholm, it was almost impossible to get cattle, and a rather high price had to be paid for them; but it is very important to show that you can pay nearly \$5.00 a hundredweight for steers, pay also the interest on the money invested and still show a profit.		
Statement of Steer Feeding at Claresholm Demonstration Farm		
Weight of 22 steers weighed out on May 27	Pounds. 33,130 26,855	
Total gain	6,275	
Average weight of 22 steers weighed out	1,506 1,220	

Average gain per head.....

	\$2,186.58 36.00	By sale of 22 head of cattle May 27 at \$6.60 per 100 lbs. By gain in weight of 4 hogs running after steers, \$9 per hog
•	30.00	
<b>\$2,22</b> 2.58		Total amount realized
	\$1,289.04 14.59	To price of 22 steers, 26,855 pounds, at \$4.80 per 100 lbs. To freight from Pagan to Claresholm
	40.00	To interest on note 5 months and 8 days at 7 per cent
		To feed of steers:—
	227.00	Grain
	316.00 35.50	Green feed Wild hay
	2.00	Salt
	120.00	Labor
	15.00	Gasoline
\$2,059.13		Total cost of steers
\$163.45		Total net gain
	00 1 1	Net gain per head, \$7.43.
\$101.02		Average selling price per steer, including profit of \$36. weight of hogs
59.26		Average purchase price per steer
		Character has been
\$41.76		Gross profit per head
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er farms, ne others fair profit	s at the oth rs, while th inditions a f	partly owing to the fact that they were weighed off ca were weighed at point of shipment. Even under these co
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ner farms, ne others fair profit  m.  Pounds.  93,825 88,480  5,345 1,360 1,264  96	\$4,202.80  \$4,202.80  \$3.00  \$51.01  227.25  300.95  173.25  189.20  600.00  27.71  225.00	partly owing to the fact that they were weighed off ca were weighed at point of shipment. Even under these co was made.  Statement of Steer Feeding at Vermilion Demons Weight of 69 steers weighed out on May 7.  Weight of 70 steers weighed in on November 6, 1911.  Total gain in weight  Average weight of 69 steers weighed out.  Average weight of 70 steers weighed in.  By sale of 69 head of cattle May 7 at \$7.00 per 100 lbs. By gain in weight of 11 hogs running after steers, \$9.00 per hog.  Total amount realized  To price of 70 steers, 88,480 pounds at \$4.75 per 100 lbs. To freight from Fort Saskatchewan to Vermilion.  To brand inspection  To interest on note from November 22 to May 17, 1912.  To feed of steers:—  Hay  Oats  Barley  Wheat  Green feed  Gasoline
rer farms, ne others fair profit  m.  Pounds. 93,825 88,480 5,345 1,360 1,264 96 \$6,632.25	\$4,202.80  \$4,202.80  \$3.00  \$51.01  227.25  300.95  173.25  189.20  600.00  27.71  225.00	partly owing to the fact that they were weighed off ca were weighed at point of shipment. Even under these co was made.  Statement of Steer Feeding at Vermilion Demons Weight of 69 steers weighed out on May 7.  Weight of 70 steers weighed in on November 6, 1911  Total gain in weight  Average weight of 69 steers weighed out.  Average weight of 70 steers weighed in.  By sale of 69 head of cattle May 7 at \$7.00 per 100 lbs. By gain in weight of 11 hogs running after steers, \$9.00 per hog.  Total amount realized  To price of 70 steers, 88,480 pounds at \$4.75 per 100 lbs. To freight from Fort Saskatchewan to Vermilion  To brand inspection  To interest on note from November 22 to May 17, 1912.  To feed of steers:—  Hay  Oats  Barley  Wheat  Green feed  Gasoline  Labor

Average selling price per steer, including profit of \$99.00 gain in	
weight of hogs	\$96.12
Average purchase price per steer	60.04
Gross profit per head	\$36.08

The Vermilion statement requires some explanation before a fair comparison can be made with Olds and Claresholm. These Vermilion cattle were weighed in full and weighed out empty. Allowing for a shrinkage of 70 lbs. per head and for 20 lbs. per head for the steer that died, the average weight at selling time would be 1450 or a gain per head of 186 lbs.

## FEEDING FOR BEEF.

(By G. H. Hutton, B.S.A., Superintendent Experimental Farm, Lacombe.)

Gentlemen,—I congratulate the management on the success of this, their first winter fat stock show. I appreciate the honour of having been asked to judge the fat classes at this first show and venture the opinion that the classes covered by a single judge yesterday and to-day will so rapidly increase in numbers that this work will soon require the services of many judges in various departments. In covering the classes I have been pleased to observe some remarkably fine exhibits. The car lots and steer classes are good and would give a good account of themselves at much larger exhibitions. I again congratulate the management on this satisfactory beginning and extend a very hearty wish for the same growth for this new show that has characterized other undertakings of this association.

My subject for discussion is the results secured from our experimental work at Lacombe in feeding for beef. I am glad to say that the results of all the feeding trials conducted at the Lacombe station have emphasized the special market that live stock affords for the grain products of the prairie. It is important to know that the recommendations given to farmers from almost every angle that they go into mixed farming are based on financial reasons. If it cannot be shown that mixed farming pays better than grain farming it is of little use to talk about maintaining soil fertility and insuring for future generations a heritage of unimproved soils. Sentimental reasons are scarcely sufficient to induce men to cease growing grain exclusively and introduce live stock on their farms if the latter system is not as profitable as the former one. I repeat that I am glad to say that our experiments so far have pointed strongly to the conclusion that live stock offer a much better market and insure a much larger profit for the farm crops than can be secured by marketing these crops directly through the elevator or mill.

We have fed steers for three years. The total equipment cost \$128.96.

We have fed steers for three years. The total equipment cost \$128.96. This cost included scantling and boards for fence and hay racks, lumber in grain tables and water tank, tank heater, salt boxes and labor of construction. We have fed outside exclusively with the buildings and stacks as the only shelter. We picked up an average bunch of steers each year at the market price.

We 'ed in 1909-10 frozen wheat worth in the market about 35 cents per bushel. When this wheat was marketed via the live stock route it brought \$1.28½ per bushel. Valuing the grain at market price plus the cost of grinding, praise hay and timothy hay at cost, i.e., \$6.00 and \$7.00 per ton respectively, the profit per head was \$14.35.

In 1910-11 a car of steers paid \$6.00 per ton for prairie hay, 1 cent per to. for chop, \$1.00 per ton for straw, 3 cents per bundle for green feed and left a profit per head of \$28.90. The oats marketed through the steers in 1910-11 brought 94 cents per bushel and barley per bushel \$1.32.

In 1911-12 the carload of steers made a profit per head of \$15.56. This profit was made after paying for brome hay at \$7.00 per ton, alfala hay at \$12.00 per ton, green feed (peas and oats cut green and cured for hay) at \$10.00 per ton, chop at 1 cent per pound, straw at \$2.00 per ton.

Such uniformly satisfactory results surely point to the fact that coarse grains can be marketed most satisfactorily through the live stock route. They prove that expensive equipment is not necessary to the successful feeding of beef cattle. They show that the man who having coarse grains on his farm selects to sell them through the elevator and to sell his steers unfinished in the "all is making a serious mistake and greatly reducing his annual profits. I would strongly recommend every breeder of steers to finish his work and secure maximum profits from his efforts by selling his cattle in a finished condition.

#### MIXED FARMING.

(By Prof. W. J. Elliott, Superintendent of Agriculture, Canadian Pacific Railway Company, Natural Resources Department.)

It is with considerable pleasure that I accepted your secretary's invitation to address the members of the Calgary fat stock show, at this, their annual falr.

It was an especial pleasure to me, because I know that the stock business is the basis of all true agriculture. This has proven to be true in older sections of this country, and while the grain grower bas had considerable sway in the west, yet to attain the highest development in agricultural matters, Alberta and western Canada must eventually come to the stock business. I care not what particular stock a man is interested in producing. All are necessary to the complete development of the West. No one man can say that his particular breed is the breed that should be accepted by all men, because there is ample room for the best product of all breeds.

As many of you know, we had the privlege of accompanying the special mixed farming train, that was run all over the province by the Alberta Government, and I must say that I am thoroughly convinced that the running of that train has meant a very great deal to the stock industry of the west. The message of each man who was associated with that gospel train was, that the stock business must be the basis of all things agricultural. There was an intense eagerness on the part of a great many people to become familiar with the feeding and handling of stock, and yet one could not help but be struck by this feature, throughout almost the entire running of the train, that there was a dreadful dearth of good stock in Alberta. True, there are those who bave splendid herds, and flocks of magnificent specimens, and this show today is a clear evidence that this is true, and yet when you take the thousands of armers scattered over all the province, one realizes that a very large percentage of the farmers are not keeping very much stock, and that which they do keep, is of rather an inferior quality.

The real stock breeders of this province are doing a mighty work in the upbuilding of the province, because in the distribution of the best males from the good herds and flocks, they are scattering abroad the greatest force

possible for the development of stock generally.

We have already pointed out that there is a considerable dearth of good stock in the province, and this fact, coupled with the fact that crops have not been of the best for the past two years, puts the average farmer in rather an awkward position. Many men would go in for better classes of stock, were it not that there is a scarcity of ready money to purchase even a few animals to begin with. Many farmers said, "It is all right for the educators in the province of Alberta to preach the gospel of more and better stock, but, in the face of conditions as they are, it is difficult for the average farmer to purchase My reply to this was to the effect that I had no idea of advising that stock." men to spend large amounts of money in the selection of herds of cattle, brood mares, or flocks of sbeep. My idea was rather that men should get into stock in the easiest way possible, and to my way of thinking, there is no better way for a man to get started in the stock business, than by securing a few good brood sows or a few sheep. Hogs are prolific, and it is surprising how quickly a man will get a large number of hogs about him at very little cost if he will take up the matter in the right way. My opinion is, that men should secure a few brood sows, due to farrow early in the spring, and then by providing a few acres of the various grains and grasses, in the way of pasture, the litters of pigs may be raised very economically indeed. Then, by selecting the best brood sows again, and carrying this process through to the second year, a man will have practically all the stock that he can care for on a small farm.

Grain is grown so cheaply in the west, and the grain that is grown makes such excellent feed, that we can produce pork, mutton and beef in competition with any district on this continent. We all know, there is not enough produced in the country to supply our own demands, hence what is produced will find a ready local market, and so far as I can see, this scarcity will continue for the next ten or fifteen years, because people are coming into the west so rapidly, that the herds and flocks of the west cannot keep pace with the ever increasing demands of the newcomer.

There is another matter that I should like to discuss for a sbort time at this meeting, and that is, the condition of our markets at the present time. We all know that the prices that are being obtained for grain are ridiculously low. This, too, in the face of the fact that we have bad rather indifferent

crops in western Canada for the past two years. The drought condition of 1910 was one that prevailed generally all over the western states and western Canada, and to have the conditions of that year followed up by rather a small crop during 1911, must have left the grain on the world's market rather short.

Now, 1912 produced a very good crop. Yet, in spite of the fact that the two previous years were short, and consequently, the grain on the world's market somewhat short, the prices obtained in 1912 were disgracefully low. It has simply put the question in my mind, as to whether or not there is some great force manipulating the market, and keeping the prices low, until the grain from the west is marketed. In this connection, it will be interesting to watch the prices that obtain for grain, next spring.

watch the prices that obtain for grain, next spring.

This line of thought has led to the conclusion that something should be done in the way of assisting the farmers to get a fair price for their produce,

after it has been grown.

Agricultural Colleges, Experiment Stations, and all corporations interested in the development of agriculture, have done much to show the farmer how to grow larger crops, and how to better cultivate his soil, and yet, with all the economical handling of the soil, and with all the larger crops that have been produced, so far as we know, no government, no experiment station and no corporation have taken up the question of showing the farmer how to obtain a better market for the produce that he does grow.

The province of Alberta, through her agricultural department, has come perhaps nearer to giving assistance in this line, than has any other govern-

ment or corporation that we have any knowledge of.

Through Mr. Marker and his able corps of assistants, the province of Alberta has undertaken to market the dairy produce from the government controlled and private owned creameries. There is no question of a doubt but that they have been eminently successful along this line. Now, if the government can be so successful and can bring such splendid returns to the farmers, through marketing the dairy products, why can the province not be just as successful in giving assistance in the marketing of other farm produce.

I am quite sure that the education of the future must include education

and assistance to farmers in the marketing end of their business.

l do not believe that the government or corporation could actually buy all the produce from the farmers, but I do believe that they could put keen business men into positions where they could keep the farmers in touch with the best markets for the various classes of produce. The more nearly the farmer and his produce can become acquainted with the man who has to use that produce, the better prices will the farmer obtain.

We all admit that the backbone of the country is the agricultural industry, and yet, economic conditions as they are today, are such, that the farmer is not getting a fair return for the labour and sweat that he puts into the produc-

tion of his grain and stock.

#### THE MUTTON SHEEP.

(By R. S. Hamer, B.S.A., of the Live Stock Branch, Ottawa.)

Mr. Chairman and Gentlemen,—In appearing before this meeting this afternoon I would like to express at the outset my appreciation of the pleasurc thus afforded me of becoming better acquainted with the members of the Alberta Sheep Breeders' Association. I have, in the course of the past few years, had the advantage of travelling over much of the settled part of your province and for one season, in fact, had my headquarters in Calgary, but this is the first time it has fallen to my lot to appear on the public platform before a gathering of Alberta stockmen.

In inviting me to give a brief address, which should be of interest to the sheepmen of the province, your secretary has assigned to me a task, which I realize is by no means an easy one. Probably, in no other province of the Dominion are to be found such favourable conditions for the development of systems of sheep raising varying so widely in their nature and methods as are to be found within the boundaries of the province of Alberta. The grazing lands of the south, the slopes of the foothills and the sheltered valleys of the mountains have already, to a certain extent, proved their possibilities for sheep ranching. The irrigated country offers opportunities as yet scarcely realized by the sheepmen while in central and northern Alberta, in that immense area by nature adapted to mixed farming, a few farmers scattered here and there have come to appreciate the importance and, in some cases, the actual necessity of keeping sheep. In the time which is allotted to me

this a ternoon it would however be futile to attempt to discuss all the phases of the sleep industry represented in the province and as the interests of the mixed farmer and the grain grower are undoubtedly more fully represented here today than are those of the ranchmen, I propose to confine my remarks to the mutton side of the business.

It is well known to everyone here that the question of meat supply in Canada is a very different one from what it was ten years ago, but it may not be known to all of you that this is rapidly becoming the most important problem associated with the live stock business in this country. We are accustomed to thinking of Canada as a great food producing country and of speaking with pride of our export trade in farm products. It is true we have held 'or years an important place on the British market and that we still stand well up in shipments of some lines of agricultural produce. It is also true that we are primarily an agricultural country and that our resources in this respect are almost immeasurable. At the same time, it is rather disconcerting and, in fact, almost alaiming to get down to a consideration of actual facts regarding our meat trade. It is only a year or two since the fact began to impress itself upon those in touch with the situation that Canada is on the verge of failing to supply her own demand for meat products. The situation today is one of very serious importance and demands consideration not only of the special live stock interests but of the general farm problem. It is a fact that Canada is still an exporting nation of beef, but even a superficial knowledge of conditions throughout the country and but a brief consideration of export figures is sufficient to convince anyone that at the present rate of dec ease in supply only a short time will clapse before our cattle export trade will be a thing of the past. The receipts of the leading markets have been falling off from year to year for the past five years, particularly of course in the west. In 1909 the beef receipts in Montreal and Toronto fell 3% and 8%, respectively, as compared with 1910, while the receipts of Winnipeg dropped from 190 000 to 102,000, a falling off ot 46%. In other words, there were 17% fewer cattle received at these leading market centres in 1911 and 1910. The falling off of the cattle forwarded east from Winnipeg is indicated by the following figures:

Exporters Butchers Feeders	39,750	10,356 16,875 5,411
Total	110,452	32,632

Increased shipments into British Columbia have, no doubt, accounted in part for the shrinkage of the receipts at Winnipeg, but it is very evident that the passing of the ranch has greatly decreased the margin between the supply and demand for beef in Canada. This fact is still more clearly shown by export figures. Whereas in 1909 we exported 154,000 head, the number dropped to 102,000 in 1910; while in 1911 we exported only 54,000 and for the first nine months in 1912 only 18,000. As 11,000 cattle are annually imported into Canada, it is clear that we are rapidly approaching the point where our exports will not balance our imports.

While the time appears to be rapidly drawing near when Canada will cease to meet her own demands for bee', we bave already passed the point where mutton supplies kept pace with demand. At one time Canada exported sheep and lambs in large numbers. For instance, in 1895 from the port of Montreal alone 201,000 were exported and even as recently as 1907, 130,000 we e shipped out of Ontario to Buffalo. In 1909, however, Canada's export trade dropped to 50,000 head and last year only 7,232 head were exported. Anc his is not all; while our shipments in mutton have been steadily falling off, our imports have been rapidly growing. During 1909 our imports of live sheep were 38,000, of which 37,500 were received west of Port Arthur. The net year the number was 73,500, of which 71,700 went to the west. In 1911, we imported 180,000 and of that number 160,000 came into western Canada. Even this number does not supply the western trade, thousands of sheep being brought west from Ontario and Prince Edward Island. In addition to this we and a steadily growing import trade in dressed mutton, directed almost entiresy to the western market. During the past three years our imports of d essed mutton have been 1,431,000 lbs., 2,094,000 lbs. and 3,410,000 lbs., respectively. To express the facts regarding our mutton import trade in a orm mo e readily grasped, I might say that last year there were imported into (anada either as live animals or in the form of dressed mutton several

thousands more sheep than are today to be found in the whole of the province of Alberta. In view of our increasing population and the increasing popular demand for mutton and taking into consideration the uniformly good prices which have ruled during the past few years, it is a matter of surprise that the much talked of decline in the sheep industry has not been arrested ere this. As a matter of fact, Canada has fewer sheep than she had forty years ago, and even during the past five years her sheep population has been declining at the rate of 100,000 to 120,000 per year. Today we have about 2,300,000 sheep in Canada. This number looks very small indeed compared with the 105,000,000 of Australia, the 79,000,000 of the Argentine and the 28,000,000 of New Zealand. Even the small congested area of Great Britain supports 32,000,000 sheep.

The sheep population of Alberta has remained almost stationary for the past three years at approximately 180,000. Two years ago it was estimated at 162,000. Nevertheless, there are many reasons which should tend to encourage the mixed farmer to establish a flock of sheep and which indicate that a very material increase in the sheep population of the province cannot long be delayed. In the first place, we have in Alberta natural conditions of topography, water, shelter and climate than which there are none more favourable for the production of mutton in the whole of the west. In the second place, there is even in the best years in this country a great deal of inferior grain which it is almost impossible to dispose of profitably, to say nothing of the difficulty which is experienced in getting a remunerative price for the better grades in years of profitable crops. In the form of mutton this grain could be disposed of with profit and, as already pointed out, there lies on either side and right at home a large and growing market as yet supplied largely from outside points. It is true that to secure the most from this market organization will, doubtless, be necessary, but the fact remains that thousands of dollars are annually going out of the province and out of other provinces in western Canada for mutton, the greater part of which it should be the business of the farmers of Alberta to secure for themselves if possible. Finally there is the weed problem, one of the most serious confronting the western farmer today. As settlement of the prairie country has been pushed westward weeds have followed. Districts which have been settled longest are the worst polluted and it is but natural that this province does not yet feel the effect to the same extent as does Manitoba and eastern Saskatchewan. Take for example the pernicous and all too common pest, wild oats. Conservation Commission of Canada reports that of every one hundred farmers interviewed in western Canada, the following percentages have reported the presence of wild oats on their farms::

ln Manitoba	94%
ln Saskatchewan	60%
ln Alberta	31%
In British Columbia	19%

The commission found on every hand where sheep were kept fewer weeds and better grain crops. One man reported that during one year when his neighbours were docked from two to seven bushels per load of wheat his certificates generally read "No dockage" and never over 1%. Summer fallows, roadsides, fenced corners and waste places are the propogating grounds for weeds. A flock of sheep would not only keep them in check, but would actually eradicate them, to say nothing of the beneficial effect they have in packing the fallow.

In the case of annuals or weeds that grow yearly from seed, if sheep are turned upon them while young these weeds will never get a chance to seed. Amongst perennials they are equally useful, as they nlp the stalk below the crown in their endeavours to get at the roots. These roots are to sheep what celery is to the human race.

In America six hundred weeds and grasses grow and, of this number, cattle eat fifty-five; horses, eighty-three; sheep, five hundred and fifty. This fact alone should cause the wheat grower to stop and consider not whether he should keep a flock but rather if he can afford not to keep them. Farmers have been forced to go into sheep raising ere this to help rid their farms of the weed curse. To this add the abundance of cheep, coarse grain unfit for market coupled with a keen demand for mutton products and even the prejudiced must admit that there are attractive possibilities in sheep for the grain farmers in Alberta.

The markets in western Canada are not subject to the fall gluts which

always tend to reduce prices during October and November in Montreal and Toronto. During the past two years the market for lamb in the west has rarely fallen below five cents for tops and this year has been nearly six cents. At the present time the market quotations for lamb at Calgary are higher than in any other leading market in Canada. Notwithstanding the uniformly good prices which may be commanded here for well finished lambs at any season the question as to whether it will not pay to feed for the spring market is an important one and one worth considering from the standpoint of securing profitable returns for waste grain. Now that alfalfa is being grown extensively in irrigated districts and profitably in other sections a suitable combination of feeds may be secured. If provision is made to supply roots to give succulence to the ration, greater gains and a better finished product will result. Probably it is asking a good deal of the western farmer to suggest that he grow roots but no one who has tried it will deny that they fill an important place in winter feed for sheep and that they give very profitable returns. The experiment conducted at Lethbridge last winter where 250 lambs were fed for sixteen weeks is specially interesting in this connection. I see here today Mr. Grisdale who had charge of this experiment and with his permission will refer to some of the results secured. These lambs, which averaged 79 lbs. at the beginning of the experiment, were divided into five lots of fifty each. All were fed alfalfa for the first two weeks. The first lot received alfalfa and screening for the remainder of the time; the second alfalfa and meal; the third alfalfa, roots and meal. The fourth lot received alfalfa and roots, to which meal was added at the end of ten weeks. The fifth lot were fed alfalfa alone up to the end of ten weeks, after which meal was added. The profits ranged from \$1.20 to \$1.56 per head, exclusive of rent and labour charges. The effect of roots upon the finish of the two lots to which they were fed was very evident. Lot No. 3 made the best gains, and were the best finished at the time of marketing. Their average gain of 36 lbs. per head for the period was, it is true, not made so economically as the gains of some of the other lots but nevertheless, they gave a profit of \$1.23 per lamb and their superior finish undoubtedly assisted in securing a good price for some of the other lots. While alfalfa and screenings gave a profit of \$1.58 per head, this lot made the poorest gains and were not well finished. Alfalfa and meal alone proved a more expensive ration than any of the others, but resulted in a well finished lot of lambs. Lot five, which was fed alfalfa alone for the first ten weeks, gave poor results until the meal was added. All of the lambs were sold in the spring at 61/4c, less 5% shrinkage. The feeds used were charged at the following prices:

Roots	\$ 2.50 per ton.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	\$20.00 per ton.
Alfalfa Screenings	\$10.00 per ton.

One of the greatest difficulties to be contended with in sheep raising in the west is undoubtedly the depredations of covotes. For small flocks, fencing appears to be the only remedy. Where it is possible to guard the sheep during the day a well fenced corral for protection at night may suffice. While a six to eight strand fence will hold sheep, ten to twelve strands will be needed to keep out covotes. Such fences should be forty inches high and are better if fifty-four inches in height. The first will cost about 40c per rod and the second about 55c. Posts should be 25 ft. to 30 ft. apart with the corner post set 4 ft. deep, with braced panels at each corner and at intervals of about 40 rods. Our enquiries indicate that where such fences have been built in the west the cost is estimated by the owners at an average of \$300 per mile with labour included or \$150 per mile labour excluded.

I see that I have already consumed probably more than my share of the time of this meeting and as some points which I had intended to touch upon with reference to selection, care and management have already been very fully dealt with by previous speakers. I will pass on to one final point, which is too frequently neglected by sheepmen all over Canada and particularly in the west: that is dlpping. The object in dipping Is first, to get rid of ticks and lice which torment the animal and absorb nourishment; second, to cleanse the skin and prevent scab and skin trouble; third, to increase the growth of wool. In flocks which are dipped regularly in the spring and fall for two years the wool clip for the following season should be increased by two

pounds per fleece. There are many dips on the market, some of which are excellent and some of which are poor and should not be used. Of the latter, tobacco dips are an example. They stain the wool and, in addition, the nicotine is absorbed by the skin. Pitch tar dips also spoil the wool. The limesulphur dip is the official dip for scab, but should be used only in cases where it is prescribed as a cure for this trouble as it discolors and otherwise injures the fleece. For spring dipping poisonous dips have several advantages. They kill all ticks and lice and, in addition, remain in the fleece for a sufficiently long time to be effective as the eggs of these pests are hatched out. Nonpoisonous dips, on the other hand, kill only such insects as may be on the animal at the time of dipping. In addition, poisonous dips prevent scab, condition the blood after the long winter and open the fleece, making it lofty and fluffy for showing. For fall dipping the carbolic or coal tar dips are usually recommended, as their action on the fleece is the opposite to that of the poisonous dip, tending to waterproof it and make it less pervious to snow and rain. While inexpensive dipping tanks may be built or purchased, a saving may be effected by several neighbours co-operating, where such is possible, in the building of a larger tank with conveniences which will facilitate putting through large flocks of sheep quickly. Plans for such dipping tanks may be secured at any time from the Live Stock Branch at Ottawa.

#### ADDRESS BY R. G. RICHARDSON OF THE P. BURNS Co.

As most of the feeders are well aware, steer beef always commands the highest market price from a butcher's standpoint. The reason for this is that the meat is of a much finer flavour, firmer and the fat is more evenly distributed throughout the carcass than is in the case with cow or heifer beef, therefore steer beef cuts to a greater advantage to the butcher than does cow beef.

Take for example a carcase of steer and likewise a carcase of cow, cut up these two carcases and to the inexperienced eye, the difference is plainly perceptible, whereas in the flesh of the steer, the fat will be distributed through the lean meat, making same rich and juicy and whereas in the cow beef, the fat will lie in chunks in different parts of the carcase, this fat lying as it does simply means a loss to the butcher, as there are very few of his customers who care to eat or even buy a solid piece of fat.

I do not wish the feeders of beef to take it that it is not necessary to feed their cattle to a state of perfection, but I do say there is such a thing as overfeeding from a butchers' standpoint. We will take for instance, even in the markets of Europe, where the people look for fat beef and where it is customary for the meat markets in the cities to purchase the prize winning animals at the Christmas fat stock show, this in my estimation and in my experience, has not been a profit making scheme from the sale of this beef, but from the advertising derived from this source, as the amount of fat trimmings from these cattle eventually find its way into the rendering kettle and the butcher never realizes the amount of the purchase price through the sale of the meat.

Weight, that is the dressed weight—From a butcher's point of view, what we require are cattle weighing from 600 to 700 pounds, the reason for this is simply that it is impossible to cut heavy cattle to advantage from a retail standpoint on account of the cuts from these heavy cattle being too large for family use. To explain my meaning more fully, you will readily see that a small roast from one of these cattle is simply nothing more than a steak, that is to cut up these cattle in the regulation way. I might also add that cattle brought to maturity early will always have a much brighter appearance than old cattle. I refer to cattle four or five years old.

#### MUTTON AND LAMB.

What applies to beef to a great extent applies to mutton insomuch that the trade requires a sheep to weigh between 45 and 55 pounds dressed. It is necessary from a profitable standpoint that the type of sheep be of a long backed variety, this gives the butcher the long rack from where all the prime chops and saddles are derived. It is not necessary however, for breeders to take exception to the term "long" to such an extent as to cause a weakness in the raising of this particular type.

Lamb.—Regarding lamb, I would suggest that breeders put forth all efforts possible to mature lambs as early as possible. It is not necessary for me to

say that lamb that can be matured and put on the market around Easter commands the highest price of any time of the year.

#### HOGS.

Packers or Medium Fat Hogs.—In either of these varieties my advice to farmers is to raise hogs, then raise more hogs. The demands for hogs in Alberta today is far in excess of the supply, the result is that the packers have not yet got so far as to pay particular attention to the grading of hogs weighing between 150 and 250 pounds live weight. Of course very heavy rough hogs are graded on any market, but we must not lose sight of the fact that there is a good market in Alberta for all the hogs that can be raised.

Type.--Now to come back to the breed or type that the packer requires, the most suitable is the hog weighing in or about the weight stated above, having long deep sides, nice sloping shoulders and good round hams. Care must be taken that the breed be of a fine or thin skinned variety. This class of hogs will always have the preference on any market, as from this hog, the packer gets his choicest meat,

I wish to express thanks on behalf of the Alberta Live Stock Associations to yourself for your attendance to officially open the show, and to the various speakers whose addresses added very greatly to the educational value of the show. We hope to increase the effectiveness of this part of the show each year.

We trust it will be possible for you to publish the various addresses so that the information given therein may be available for those unable to attend the show.

Respectfully submitted, E. L. RICHARDSON, Secretary and Managing Director.

#### APPENDIX F.

SEVENTH ANNUAL REPORT OF THE ALBERTA HISTORY SOCIETY.

Hon. Duncan Marshall,
Minister of Agriculture.

SIR,—I have the honour to submit herewith the seventh annual report of the Alberta Natural History Society for the year 1912.

The annual meeting of the society was held in the eouneil chamber, Red Deer, on Friday, November 29th, 1912.

The president, Dr. H. George, Red Deer, in the chair.

#### PRESIDENT'S ADDRESS.

The president gave a brief address welcoming the members to the meeting and reviewing the incidents of the past year. While the progress of the society had not been up to expectations during 1911, he was glad to say that steady progress had been made during 1912, and prospects were very encouraging. There was not much in the way of observation notes that was new. He would draw attention to the persistent efforts of Mr. Brown in his search of prehistoric remains in the Trochu Valley; his efforts have been marked with deserved success, though we as a society would decidedly object to these valuable relies leaving the country and

being deposited in the Museum of New York. The last find made by Mr. Brown was a complete specimen of an animal hitherto unknown to science, and its estimated value is \$70,000.

Prairie ehicken have beeome plentiful, no doubt owing to protection by the government, so plentiful indeed that in some places crops have been damaged by them, causing the farmers a loss.

Capt. Cottingham reports that he has shot a very rare specimen, an albino teal. Albinos have been obtained in the other classes, but this is the first albino teal so far secured. The captain has the specimen mounted and placed among his valuable collection of trophies.

#### REPORT OF THE SECRETARY-TREASURER.

In connection with the work of the society it was decided that prizes should be offered at the agricultural shows this year at Red Deer, Innisfail and Erskine as follows:

1st and 2nd for Collection of Alberta Wild Flowers.

1st and 2nd for Collection of Alberta Insects.

1st and 2nd for Composition on "Bird Life in Alberta During the Summer Months."

Flowers.—to be mounted on cardboard 12x15 inches, showing the plant with—when possible—root, flower and seed; flowers to be named, with name of place and date of gathering.

Insects—including butterflies, moths, beetles, etc.; to be pinned in cardboard boxes and named as far as possible.

Composition on Bird Life—noting time of arrival, characteristics of birds, nests and eggs—to be written on one side of the paper only.

These competitions are open to school children in the different districts, each exhibit to be the bona-fide work of the exhibitor, and to bear the name and age of exhibitor. Due allowance will be made for age.

## The prizes are as follows:

First Prizes: Alpine Flora of Canadian Rockies	Value \$2.75
Entomology	$\frac{2.00}{1.75}$
Second Prizes: Freckles Reed's Flower Guide	2.00
Reed's Bird Guide	

#### RECEIPTS.

To Baiance on hand	\$138.44
Grant to Society, April, 1912	100.00
L. B. Potter, fee	
J. S. Short, fee	. 50

\$239.44

#### EXPENDITURES.

By G. R. Westland, printing.	\$ 6.25
L. C. Harry, typing.	2.50
Postage	1.25
Stationary and sundries	3.05
Mrs. Hughes, Erskine, expenses to meetings	10.00
Mr. R. E. Fiske, expenses to meetings	4.50
Mrs. Keast, expenses to annual meeting	2.00
Rev. J. S. Short, expenses to annual meeting	3.50
Mrs. G. H. Good, expense of banquet	27.15
Mrs. George, sundries	1.70
L. C. Harry, typing correspondence and annual report.	2.50
Red Deer Advocate, printing.	4.65
Red Deer News, dodgers	2.15
Grant to Red Deer braneh	10.00
Grant to Erskine branch.	10.00
Balance on hand	148.24
	\$239.44

Audited and found correct,

FREDR. M. ROGERS,
Auditor.

## REPORT OF THE RED DEER BRANCH.

To the President,—I beg to submit the following report of the Red Deer branch for the past year just about to close. It has not been a very strenuous year with the Red Deer branch owing to various eauses which need not be gone into just now. Still the year has not been altogether barren as will be seen by the list of interesting lectures reported below. And at the end of the year there is a promise of greater interest and activity in natural history work than was seen a year ago.

No annual meeting of the branch was held in 1911 and the old executive remained in office during 1912 until August, when Mrs Worless the Hon. Secretary-Treasurer, left Red Deer and was succeeded by Mr. H. G. Munro for the remainder of the term.

The following lectures were given in the Red Deer public school:

- Jan. 23. On Radium:—by Principal McKenzie, B.A.
- Feb. 6. Mountain Climbing:—by Prof. J. E. Bouce, of the Alpine Club of Canada.
- March 12. Game Preservation:—by Capt. W. H. Cottingham, Dominion Land Agent, Red Deer.
- May 7. Natural history notes from the District of East End, Sask.—
  A paper communicated by L. B. Potter, Esq., of East End.
- July. Some notes on the Natural History of a Winter Tramp up Sulphur Mountain, Banff:—Paper coommunicated by N. A. Sanson, Esq., Curator National Park, Banff.
- Field Day. On June 1st the society had their first, and unfortunateately the only field day that it was possible to hold during the summer. The gathering was much enlivened by representatives from the Innisfail Branch, and a very enjoyable afternoon was spent and some 64 botanical specimens collected.

At the annual meeting held on October 29th the following officers were elected:

President.—Dr. H. George.

Vice-President.—Mr. S. Pamely.

Secretary-Treasurer.—Mr. E. Wilton.

Executive Committee.—Mesdames George, Green, Cottingham, Pamely and Tallman, (together with the officers.)

## INVENTORY.

## 1 Exhibition Show Case.

Specimens:—Animals, birds, birds' eggs and nests, minerals and pressed plants.

Books:—Farm Weeds, Catalogue of Canadian Plants, several volumes. Catalogue of Canadian Birds, Bird Lore, 1 volume. Old Red Sandstone, (Miller.) Newspaper cuttings (Portfolio.)

# LIST OF MEMBERS.

Alford, B. P.	Lord, W. E.
Bouce, J. F.	Lord, Mrs. W. E.
Carswell, J. A.	Michener, E., M.P.P
Cassels, Mrs. W. A.	Moore, Rev. C. W. G.
Cole, Miss	Munro, H. G.
Galbraith, F. W.	Pamely, S.
Galbraith, Mrs. F. W.	Pamely, Mrs.
George, Dr. H.	Summerby, Miss F.
George, Mrs.	Tallman, Mrs. F. II.
George, Miss.	Wanless, Mrs.
Cottingham, Mrs.	Wilton, E.

## RECEIPTS AND DISBURSEMENTS.

		RECEIPTS AND DISBURSEMENTS.		
191	1.			
Jan.	1	To balance at bank	\$35.75	
Nov.	1	By postage		\$ .75
191	2.			
March	15	By printing re Prof. Boyce's lecture		3.50
March	15	By distributing bills re Prof. Boyce's l	lecture.	1.00
April		By postage		. 50
April	15	To grant from provincial society	10.00	
May	6	By postage		. 25
June	10	By postage		. 20
June	10	To subscriptions:		
		Alford, B. P	. 50	
		George, Dr	. 50	
		George, Mrs.	. 50	
		Pamely, S	. 5 <b>0</b>	
		Pamely, Mrs	. <b>50</b>	
		Summerby, Miss F	. 50	
		Wanless, Mrs	. 50	
		Wilton, E	. 50	

June Oct.		By livery, Cruickshank	
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SOME NOTES OF A WINTER'S TRAMP UP SULPHUR MOUNTAIN, BANFF.

Paper prepared for the Red Deer Branch by E. N. Sanson, Esq., Curator National Park. Banff.

Naturally, one does not expect to see very much life on any of the mountains about Banff, during the winter months, outside of fur-bearing animals or the traces of them. But there are, during the milder weather in winter, certain interesting insects found on the snow of which I shall first make

The Snow-Flea (Achorutes nivicola) of the order Thysanura, family Poduridas (spring tails and bristle tails.) The spring tails are very primitive and degraded insect forms and are all wingless, and undergo no metamorphosis. The mouth parts are quite rudimentary and retracted within the head, only the ends projecting. Their bodies are covered with scales, and they can adhere to surfaces. These spring-tails occur everywhere, under leaves, the bark of trees, under the surface of water and on mushrooms, and rarely live except in moist and shady places where their eggs are deposited. Some of the Podurids are prettily coloured and patterned. The scales are very minute and bear many fine lines and cross lines regularly arranged. this account they are very much used as test objects for microscopes, the quality of the lens being determined by its capacity to reveal their extremely fine markings. Dr. L. O. Howard, in his book on Insects says: "The Podurids are amongst the most abundant of insects, although, on account of their excessively small size, they do not attract attention. There are about six species in North America, and they are commonly found in deep soil which contains more or less humus, and have been taken in stiff clay sub-soil at a depth of six feet; but they probably penetrated to this depth by following the path of rootlets.'

The Snow Flea (Achorutes nivicola) of this family is sometimes seen in great numbers leaping on the snow, mostly in spring and fall, but sometimes during milder weather in winter. I have seen many thousands on the surface of the snow on the trail of Sulphur Mountain. They simply covered the trail for 1500 feet more or less.

They leap vigorously to a considerable height and distance when alarmed, by means of a long appendage near the extremity of the body on the second from the last segment. This appendage is hooked, and, on being loosed, throws the insect high in the air. They also work their way under the snow by means of the minute openings-to what depth I am not aware. Comstock says the snow-flea is sometimes a pest where maple sugar is made the insect collecting in large quantities in the sap. The immature specimens of a Podurid, perhaps Achorutes nivicola, are occasionally seen in yellow pollen-like masses on the snow and ice on Sulphur Mountain, both on the trail and on the top. They are snow-born, as their specific name implies. When I first saw one of these clumps of yellow matter, and before closely examining, I thought it was sawdust from a decayed tree, or the mycelium of some fungus. These immature specimens soon die if taken from their natural habitat. Both these and the mature insect are best kept in alcohol as specimens.

Boreus Californicus: Strange little, wingless, shining-black, leaping insects found on snow, of the order Mecoptera, scorpion-flies, family Panorpidae (or order Neuroptera, but not truly so.)

The front of the head is greatly elongated into a sort of beak, antennae

slender, body less than ¼-inch long, simple eyes, ocelli absent.

The metamorphosis is complete. They are carnivorous. The female Boreus Is wingless, the male having rudimentary wings, and both look something like mlnute wingless grasshoppers.

Boreus Californicus is the Pacific Coast species of about four species in North America. It occurs on the surface of the snow during winter in mllder weather, and in spring or fall on Sulphur Mountain, also in the valley, but not so abundant, often quite numerous.

They leap and feign death when alarmed. I have taken specimens every winter month in different years, sometimes at temperatures several degrees below freezing point; good specimens can be made of them for the cabinet. These insects are often found with the Snow-flea, and also with the following:

Snow-Fly Chlonea Valga (Harris)-order Dlptera, family Tipulidae (Crane Flies). Chionea is a curious wingless genus and is found on snow, has the balancers of the fly, and looks, with its long legs, not unlike a small harvest spider. I took it to be a spider on my first seeing it. The body is a sort of light chocolate brown, legs long, but not quite so fragile as those of the crane flies; walks with a more or less stately tread over the surface of the snow, sometimes rather rapidly. This Chionea is found on Sulphur Mountain, but in milder weather, during winter. I have taken specimens every month (during different years), occasionally at temperatures several degrees below freezing point. The Chionea do not leap, but feign dcath like a spider. Valga is not found in any numbers.

Chionea Nivicola, Doane, a slightly larger species, light brown, rare on Sulphur Mountain. I have only taken about one dozen specimens in several years. This is also found on the snow. Both these Chionea shrivel up on drying, and make poor specimens for the cabinet. Aldrich's catalogue of diptera records only specimens from Pullman, Washington.

The above are practically all the real winter snow insects, but the following are found lively on the snow during spring and fall, March, April and May, and September, October and November in milder weather, and sometimes at temperatures below freezing point, still and active.

Chironomus, or midge species not altogether uncommon on the snow; and some Scatophaga species; all of the order diptera.

Of Coleoptera, (Beetles.)

Bombidium longulum, (small Beetles) are found on snow fairly common. Hydnobius Matthewsi, on snow September and October, a small bettle fairly common at times.

Species of Homolata of the Hemitera in spring and fall, infest fungi,

tolerably common.

An arctian caterpillar, larva of the beautiful llttle moth Neocarctia beanil, some years in spring is seen. On May 4th, 1908, these caterpillars were fairly numerous on the snow on Sulphur Mountain, far away from what little exposed rock or soil there was, about 2500 feet clevation, and moving rather actively.

Spiders are occasionally seen in winter, during milder weather, and other insects and larvae-some of the larvae falling from trees.

Of the animals I have seen but few different kinds in the winter, though the tracks of several others are often numcrous.

Of those seen, the snow-shoc rabbit, or varying hare, (Lepus Americanus) are at times very numerous, and again being almost exterminated, as in 1909, 1910 by the nature of the winter, and by disease. Ticks become so numerous in these rodents' ears as to cause weakness, when they are the more easily taken as prey and also die. They change to white about November, and to their summer hue of grayish or mauvish gray about May, and come about the hut. They are again increasing.

The common red squirrel, (Scurus Richardsoni) a few of which are seen with their tunnels under the snow to their stores of cones and fungi.

White footed, or deer mouse (Peromyscus leucopus) by far the most abundant rodent or mammal on this or other mountains. Especially is it found in numbers on the top of Sulphur Mountain, and the observatory hut swarmed with them on one occasion. While remaining over night in the hut I caught, with one trap, one every ten or fifteen minutes, and calculated that about 40 or 50 different individuals came into the building during the night. They came in under rock openings; after considerable work this was stopped. They were very destructive, making very bulky nests of all sorts of material, and were apparently not particular as to their food, eating soap, putty, etc., with immunity. These mice do not, so far as 1 know, gnaw in order to get into buildings; but do more scraping.

The shrew mouse perhaps a different species, is also found on Sulphur Mountain. They come out in the coldest weather, and have their openings through the snow. They are not averse from having a swim in icy water.

The mule deer are occasionally seen, and are, by the way, remarkably

tame, and can be photographed without much bother at times.

The other animals whose traces are often seen are the Canada lynx, (lynx Canadensis), which with the rabbits become more or less numerous; the coyote, weasel, martin, and probably others at present unknown to myself. Of the birds Richardson's Grouse sometimes starties one by suddenly flying up from under the snow on the trail. A friend of mine, who undertook one of my regular trips up to the hut, came down when it was quite dark, (being delayed by heavy work), and got quite a scare by one of these birds fluttering up almost in his face; not knowing what it was he wondered what was coming next. These are the larger birds of the grouse family, and live a good deal on the barberry, which carries its fruit through the winter, and is abundant on all the mountains.

The Canada Jay, with its mimicry, even to laughing, foilows one from tree to tree in expectation of food. It builds in March.

Clark's crow disappears for a time, but is seen in the early winter and spring.

Pine grosbeaks are seen occasionally, a tame bird here at Banff. With these are also seen flocks of Bohemian waxwings, and I have seen a waxwing act as sentinel for both a flock of brosbeaks and waxwings, white feeding on the ground.

American crossbiil occasionally seen.

Red Polls occasionally seen.

Prigon Chickadees, a very inquisitive bird, seen fairly often, with a few different species of woodpeckers.

The Ptarmigan is most of a vailey bird in winter.

I might have made these notes to cover a paper including the mountains in the vicinity of Banff proper, the extra animals would then include goats, and sheep.

# ANNUAL REPORT OF THE INNISTAIL BRANCH.

Ladies and Gentlemen,—I beg to present the following report for the innisfail Branch:

Since the deferred annual meeting last June, I have made one or two attempts to get a meeting, but as so many of our members have left town, i found it impossible to do so. Some of our members have done a little field work, but in the absence of a secretary this has not been tabulated and is not available at this time. It is my intention to call a meeting early in the new year with the purpose of definitely finding out whether or not it is worth while to trp to keep the branch going.

We have a small library of 13 volumes made up as follows.

5 volumes Standard Library of Natural History.

1 copy American Animals.

1 copy Lydekker on Birds. Vol. IV.

1 copy Color Key to N. American Birds.

1 copy Mountain Wild Flowers of Canada.

1 copy How Minerals Occur.

3 handbooks, 1 each Land Birds, Water Birds, Wiid Flowers.

The following is a list from memory of remaining members.

Rev. J. S. Short.

Rev. and Mrs. M. T. Habershon.

Mrs. A. E. Keast.

Mr. and Mrs. Wm. Geary.

Mr. G. G. Geary.

Mr. Jas. Jenson.

Our cash balance in the bank at present is \$8.55.

Regretting that we have not been able to make a better showing, 1 am,

Yours very sincereiy.

W. M. GEARY,

President.

#### ANNUAL REPORT OF THE ERSKINE BRANCH.

Dear Sir,—Following is the annual report of the Erskine Branch of the Natural History Society:

Yearly officers: Mrs. S. S. Judd, President; Mrs. R. C. Parker, Vice-President; Mrs. C. B. Morton, Secretary-Treasurer.

Yearly work: Elementary study of birds, flowers, bugs and geology.
Yearly income: \$10.00 grant; \$4.50 membership fees.
Expenditures: Nothing.
Liabilities: Nothing.
Assets: \$31.28. Members in good standing, nine.

Yours truly,

BESSIE HUGHES, Secretary Pro Tem.

## ELECTION OF OFFICERS.

The election of officers for 1913 resulted as follows:

Hon. President: Honourable Duncan Marshall.

Hon. Vice-Presidents: Mr. George Harcourt and Mr. Michener.

President: Mr. R. E. Fiske, Hillsdown.

Vice-Presidents: Dr. H. George, Mr. Geary, Mrs. Judd.

Secretary-Treasurer: Rev. J. S. Shortt, Innisfail.

## EXECUTIVE COMMITTEE.

N. B. Sanson, Banff; Mrs. Dr. George, Red Deer; Mrs. Keast, Innisfail; Mrs. Tallman, Red Deer; Mrs. Cottingham, Red Deer; Mrs. Hughes, Erskine; Mrs. Geary, Innisfail; Mr. Munroe, Red Deer; Mrs. Greene, Red Deer.

J. S. SHORTT,

Secretary-Treasurer.

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